

DRESS MAKING

NSQF LEVEL - 4

Volume II of II

TRADE PRACTICAL

SECTOR: Apparel



Directorate General of Training

DIRECTORATE GENERAL OF TRAINING
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
GOVERNMENT OF INDIA



**NATIONAL INSTRUCTIONAL
MEDIA INSTITUTE, CHENNAI**

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FOREWORD

The Government of India has set an ambitious target of imparting skills to 30 crores people, one out of every four Indians, by 2020 to help them secure jobs as part of the National Skills Development Policy. Industrial Training Institutes (ITIs) play a vital role in this process especially in terms of providing skilled manpower. Keeping this in mind, and for providing the current industry relevant skill training to Trainees, ITI syllabus has been recently updated with the help of Mentor Councils comprising various stakeholder's viz. Industries, Entrepreneurs, Academicians and representatives from ITIs.

The National Instructional Media Institute (NIMI), Chennai has now come up with instructional material to suit the revised curriculum for **Dress Making - Volume II of II - Trade Practical - NSQF Level - 4 in Apparel Sector under annual Pattern**. The NSQF Level - 4 Trade Practical will help the trainees to get an international equivalency standard where their skill proficiency and competency will be duly recognized across the globe and this will also increase the scope of recognition of prior learning. NSQF Level - 4 trainees will also get the opportunities to promote life long learning and skill development. I have no doubt that with NSQF Level - 4 the trainers and trainees of ITIs, and all stakeholders will derive maximum benefits from these IMPs and that NIMI's effort will go a long way in improving the quality of Vocational training in the country.

The Executive Director & Staff of NIMI and members of Media Development Committee deserve appreciation for their contribution in bringing out this publication.

Jai Hind

SHRI. ATUL KUMAR TIWARI, I.A.S.,
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PREFACE

The National Instructional Media Institute (NIMI) was established in 1986 at Chennai by then Directorate General of Employment and Training (D.G.E & T), Ministry of Labour and Employment, (now under Directorate General of Training, Ministry of Skill Development and Entrepreneurship) Government of India, with technical assistance from the Govt. of the Federal Republic of Germany. The prime objective of this institute is to develop and provide instructional materials for various trades as per the prescribed syllabi under the Craftsman and Apprenticeship Training Schemes.

The instructional materials are created keeping in mind, the main objective of Vocational Training under NCVT/NAC in India, which is to help an individual to master skills to do a job. The instructional materials are generated in the form of Instructional Media Packages (IMPs). An IMP consists of Theory book, Practical book, Test and Assignment book, Instructor Guide, Audio Visual Aid (Wall charts and Transparencies) and other support materials.

The trade practical book consists of series of exercises to be completed by the trainees in the workshop. These exercises are designed to ensure that all the skills in the prescribed syllabus are covered. The trade theory book provides related theoretical knowledge required to enable the trainee to do a job. The test and assignments will enable the instructor to give assignments for the evaluation of the performance of a trainee. The wall charts and transparencies are unique, as they not only help the instructor to effectively present a topic but also help him to assess the trainee's understanding. The instructor guide enables the instructor to plan his schedule of instruction, plan the raw material requirements, day to day lessons and demonstrations.

IMPs also deals with the complex skills required to be developed for effective team work. Necessary care has also been taken to include important skill areas of allied trades as prescribed in the syllabus.

The availability of a complete Instructional Media Package in an institute helps both the trainer and management to impart effective training.

The IMPs are the outcome of collective efforts of the staff members of NIMI and the members of the Media Development Committees specially drawn from Public and Private sector industries, various training institutes under the Directorate General of Training (DGT), Government and Private ITIs.

NIMI would like to take this opportunity to convey sincere thanks to the Directors of Employment & Training of various State Governments, Training Departments of Industries both in the Public and Private sectors, Officers of DGT and DGT field institutes, proof readers, individual media developers and coordinators, but for whose active support NIMI would not have been able to bring out this materials.

Chennai - 600 032

EXECUTIVE DIRECTOR

ACKNOWLEDGEMENT

National Instructional Media Institute (NIMI) sincerely acknowledges with thanks for the co-operation and contribution extended by the following Media Developers and their sponsoring organisations to bring out this Instructional Material (**Trade Practical**) for the trade of **Dress Making** under **Apparel** Sector for ITIs.

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Shri. Subhankar Bhowmik	-	Assistant Manager, NIMI, Chennai - 32.

NIMI records its appreciation for the Data Entry, CAD, DTP operators for their excellent and devoted services in the process of development of this Instructional Material.

NIMI also acknowledges with thanks the invaluable efforts rendered by all other NIMI staff who have contributed towards the development of this Instructional Material.

NIMI is also grateful to everyone who has directly or indirectly helped in developing this Instructional Material.

INTRODUCTION

TRADE PRACTICAL

The trade practical manual is intended to be used in practical workshop. It consists of a series of practical exercises to be completed by the trainees during the course of the **Dress Making** trade supplemented and supported by instructions/ informations to assist in performing the exercises. These exercises are designed to ensure that all the skills in compliance with NSQF LEVEL - 4 syllabus are covered.

This manual is divided into Four Modules.

Module 1	Measuring, Drafting and Adoption Technique	180 Hrs
Module 2	Pattern Block, Draping, Grading and Manipulation	172 Hrs
Module 3	Garment Making and Production Technique	158 Hrs
Module 4	Corel draw and Quality control	90 Hrs
Total		600 Hrs

The skill training in the shop floor is planned through a series of practical exercises centred around some practical project. However, there are few instances where the individual exercise does not form a part of project.

While developing the practical manual a sincere effort was made to prepare each exercise which will be easy to understand and carry out even by below average trainee. However the development team accept that there is a scope for further improvement. NIMI looks forward to the suggestions from the experienced training faculty for improving the manual.

TRADE THEORY

The manual of trade theory consists of theoretical information for the Course of the Dress Making Volume II of II Trade Theory NSQF LEVEL - 4 in Construction. The contents are sequenced according to the practical exercise contained in NSQF LEVEL - 4 syllabus on TradeTheory attempt has been made to relate the theoretical aspects with the skill covered in each exercise to the extent possible. This correlation is maintained to help the trainees to develop the perceptual capabilities for performing the skills.

The trade theory has to be taught and learnt along with the corresponding exercise contained in the manual on trade practical. The indications about the corresponding practical exercises are given in every sheet of this manual.

It will be preferable to teach/learn the trade theory connected to each exercise at least one class before performing the related skills in the shop floor. The trade theory is to be treated as an integrated part of each exercise.

The material is not for the purpose of self learning and should be considered as supplementary to class room instruction.

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LEARNING / ASSESSABLE OUTCOME

On completion of this book you shall be able to

S.No.	Learning Outcome	Ref. Ex.No.
1	Sketch the following manually by applying suitable fabric designs- Indian Dresses & Western Dresses.	2.1.32 - 2.1.34
2	Design the following with suitable fabric design using Corel draw software- Indian Dresses & Western Dresses.	2.1.35 - 2.1.36
3	Make the following Block Pattern set using different sizes taken from a size chart - Children's Block, Block for Teenager, Ladies Block, Gents Block.	2.1.37 - 2.2.38
4	Make the Patterns for the following using Draping Techniques - Basic Bodice with Darts, Basic Bodice with Princess line, Basic Straight Skirt, Basic Circular Skirt.	2.2.39
5	Construct the following garments with fitting and quality according to the sketched designs and blocks using adaptation/draping and manipulation techniques. - Dress for Children (Yoke Frock), Dress for Teenager, Ladies Dress, Ladies Suit, Ladies Night wear, Ladies Blouse, gents' Shirt, gents' trouser.	2.2.40 - 2.3.44
6	Make patterns of the following by Pattern Grading techniques to their next higher or lower sizes using the size charts.	2.3.45 - 2.3.49
7	Make markers on different width, texture & designs of the following- Frocks, Blouses, Shirts, Trousers.	2.4.50 - 2.4.53

SYLLABUS

Duration	Reference Learning Outcome	Professional Skills (Trade Practical) with Indicative hours	Professional Knowledge (Trade Theory)
Professional Skill 60 Hrs.; Professional Knowledge 12 Hrs.	Sketch the following manually by applying suitable fabric designs Indian Dresses & Western Dresses	32 Practice of taking Body Measurements. (30 hrs.) 33. Practicing Different types of spreading using different types of fabrics. (12 hrs.)	Human Figures • Eight Head Theory • Brief introduction about Joints and Muscles • Types of Figures Body Measurements • Importance • Types & Measuring Techniques • Precautions • Size Charts (National & International) for Children, Ladies and Gent's wear • Importance of Size Charts (06 hrs.)

Professional Skill 60 Hrs.; Professional Knowledge 12 Hrs.	Sketch the following manually by applying suitable fabric designs- Indian Dresses & Western Dresses.	33. Practicing different types of layout spreading using different types of fabrics. (12 hrs.) 34. Practicing different types of layout using the given patterns using. (18 hrs.)	Patterns • Importance • Types Spreading • Types of Spreading • Methods • Types of Lay Pattern Layout • Importance • Types of layout Pattern Drafting • Drafting/Pattern Terminology • Principles of Pattern drafting. (06 hrs.)
Professional Skill 120 Hrs.; Professional Knowledge 24 Hrs.	Design the following with suitable fabric design using Corel draw software- Indian Dresses & Western Dresses.	Kids wear 35. Pattern making using adaptation technique, Fabric Estimation, Cutting and Sewing of the garments for the following groups – (90 hrs.) • Children • Teenager 36. Draw different lines & develop designs with geometrical shapes & free hands Develop color wheel & design with different color schemes. (30 hrs.)	Drafting of Children's Block Pattern Set (Bodice, Sleeve, Skirt and Trousers) Adaptation & Pattern Development (18 hrs.) Study of Corel Draw Software. Drawing & Coloring. Type & characteristics of lines Geometrical shapes & its application, Color, its type & application, Color Scheme. (06 hrs.)
Professional Skill 60 Hrs.; Professional Knowledge 12 Hrs.	Make the following Block Pattern set using different sizes taken from a size chart - Children's Block, Block for Teenager, Ladies Block, Gents Block.	37. Sketching of (30 hrs.) • Indian Dresses • Western Dresses 38. Drafting of Ladies' Block Pattern Set (Bodice, Sleeve, Skirt and Trousers). (30 hrs.)	Elements & Principles of Designs Brief Idea of Garment Sketching Design Development Market Survey Boutique Management (06 hrs.) Block Pattern • Introduction • Importance (06 hrs.)
Professional Skill 60 Hrs.; Professional Knowledge 12 Hrs.	Make the Patterns for the following using Draping Techniques - Basic Bodice with Darts, Basic Bodice with Princess line, Basic Straight Skirt, Basic Circular Skirt.	39. Practice of developing dress Pattern from Draping Technique (60 hrs.) • Basic Bodies (Darts, Princess line) • Basic Skirt (Straight, Circular)	Draping • Introduction • Process & Techniques • Importance (12 hrs.)
Professional Skill 120 Hrs.; Professional Knowledge 24 Hrs.	Construct the following garments with fitting and quality according to the sketched designs and blocks using adaptation/draping and manipulation techniques. -	40. Dart Manipulation Collar Manipulation Sleeve Manipulation. (20 hrs.) 41. Practice on special industrial sewing machines	Manipulation • Principles • Methods • Types Mass Production Process - • Sequence of operations

	Dress for Children (Yoke Frock), Dress for Teenager, Ladies Dress, Ladies Suit, Ladies Night wear, Ladies Blouse, gents' Shirt, gents' trouser.	• Double Needle Machine • Button Hole Machine • Button Sewing Machine • Multipurpose Machine (Zig-zag) (40 hrs.)	• Types of cutting machines • Fusing Technology • Types of Industrial Machines Used in sewing section. • Finishing (12 hrs.)
		Ladies wear 42. Pattern Making using Draping/ adaptation. (22 hrs.) 43. Fabric Estimation, Cutting and Sewing of the following garments (35 hrs.) • Ladies Dress • Ladies Suits • Night wears • Blouses 44. Pressing & Folding checking the fitting of the garment. (3 hrs.)	Designing, Sketching and drafting of the following garments • Ladies Dresses • Ladies Suits • Night wears • Blouses (12 hrs.)
Professional Skill 120 Hrs.; Professional Knowledge 24 Hrs.	Make patterns of the following by Pattern Grading techniques to their next higher or lower sizes using the size charts	Gents wear 45. Pattern making using adaptation, Fabric. (32 hrs.) 46. Estimation, Cutting and Sewing of the following garments-Shirts & Trousers. (55 hrs.) 47. Pressing & Folding checking the fitting of the garment. (3 hrs.)	Designing, Sketching and drafting of Ladies' Suit with variation of Angarkha, Flared, Yoked etc (18 hrs.)
		48. Pattern Grading of Gent's Shirt. (15 hrs.) 49. Pattern Grading of Gent's Trousers. (15 hrs.)	Pattern Grading • Types • Methods (06 hrs.)
Professional Skill 90 Hrs.; Professional Knowledge 18 Hrs.	Make markers on different width, texture & designs of the following-Frocks, Blouses, Shirts, Trousers.	50. Practice of developing designs with Corel draw tools. (40 hrs.) 51. Methods of removing different kinds of stains in fabrics. (10 hrs.) 52. Checking of garments in respects of – (10 hrs.) • Measurements • Stitching • Stains • Defects • Correcting measures	Study on Corel Draw Software Stains • Classification, removing techniques Selection of dresses according to Occasion, occupation, Climate, Personality, Age & Sex. Quality aspects • Definition, Factors affecting the Quality, Benefits of Quality Control • Indian and International Standard • Types of Inspection- AQL (12 hrs.)
		53. Making Marker on different Width, Texture & Design for Frocks, Blouses, Shirts, and Trousers. (30 hrs.)	Marker • Necessity, Types, Preparing markers according to the fabric designs (06 hrs.)

Practice on taking of body measurements in dummy

Objective: At the end of this exercise you shall be able to

- take measurements from dummy.

Requirements

Tools/Instruments/Equipments

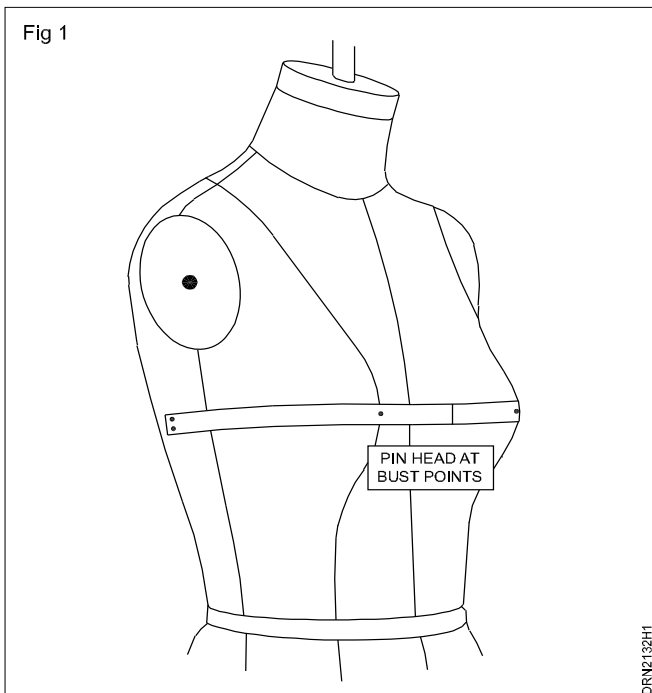
- | | | | |
|------------------|---------|----------------------|------------|
| • Measuring tape | - 1 No. | • Paper or note book | - as reqd. |
| • Dress form | - 1 No. | • Pencil or pen | - 1 No. |

PROCEDURE

TASK 1: Prepare the form for measuring

Bust bridge (Fig 1)

- 1 Cut a strip of cloth 1.5"x26".
- 2 Fold the edges to centre, and fold again.
- 3 Place across bust points, ending 1" past the side seam.
- 4 Push pins through bust points.
- 5 Mark the centre line.
- 6 Replace waist line tape, if the tape is damaged.

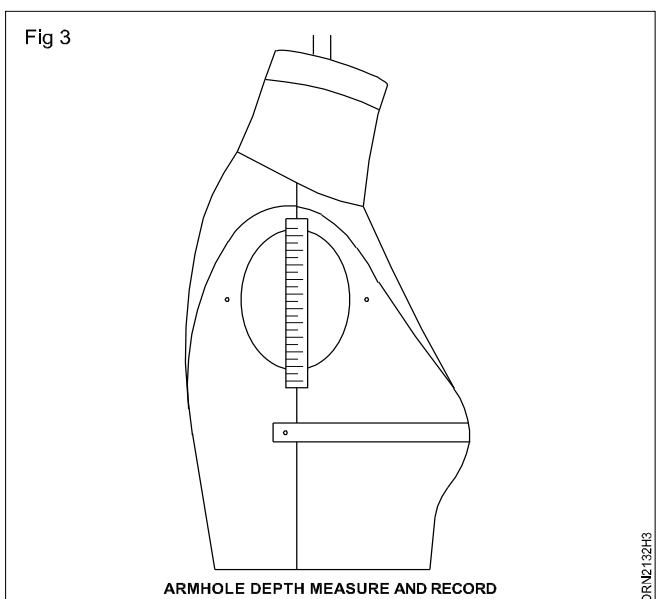
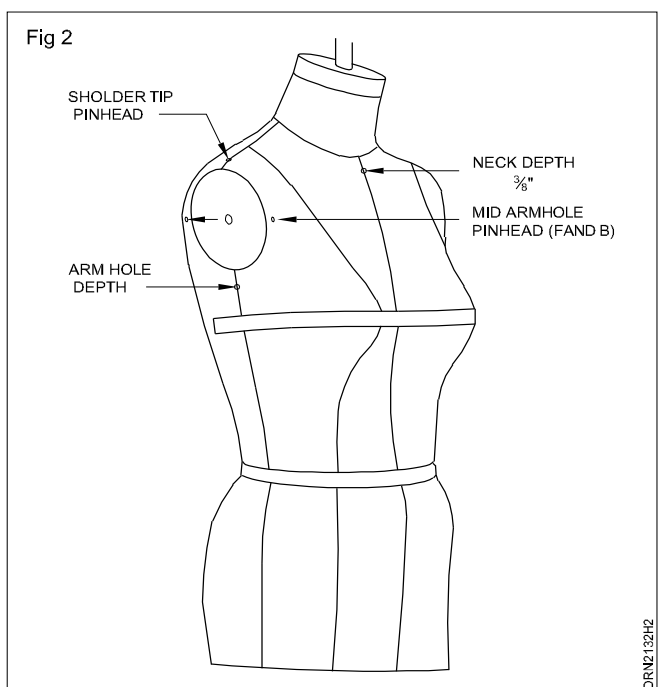


Pin head guides (Fig 2)

- 7 Thrust pins through shoulder tip at the ridge, or roll line, mid-armhole at level with the plate screw, and 3/8" below the centre neck.

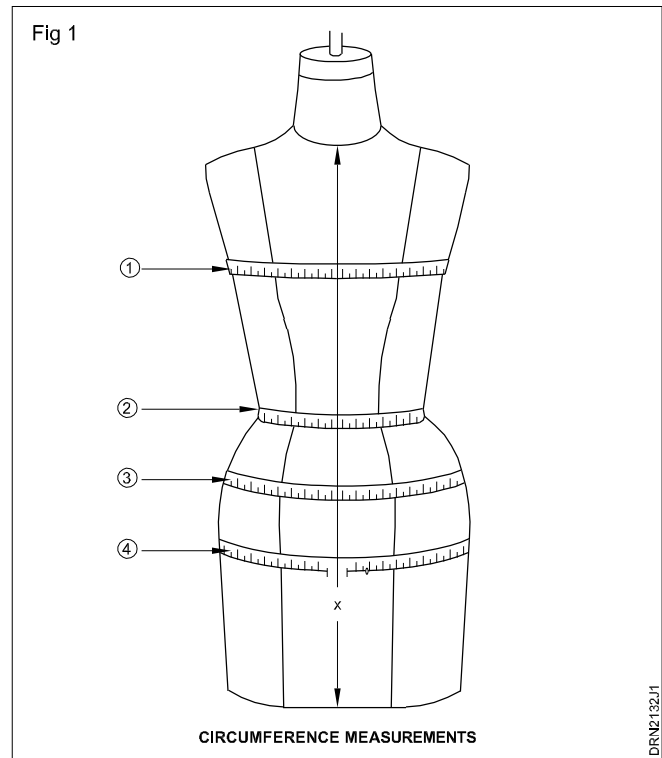
Armhole depth chart (Fig 3)

- 8 To locate the armhole depth of the form, choose the measurement that corresponds to the form size.
- 9 Measure down from armhole plate at the side seam, and thrust a pin head at the point.



TASK 2: Take circumference measurements (Fig 1)

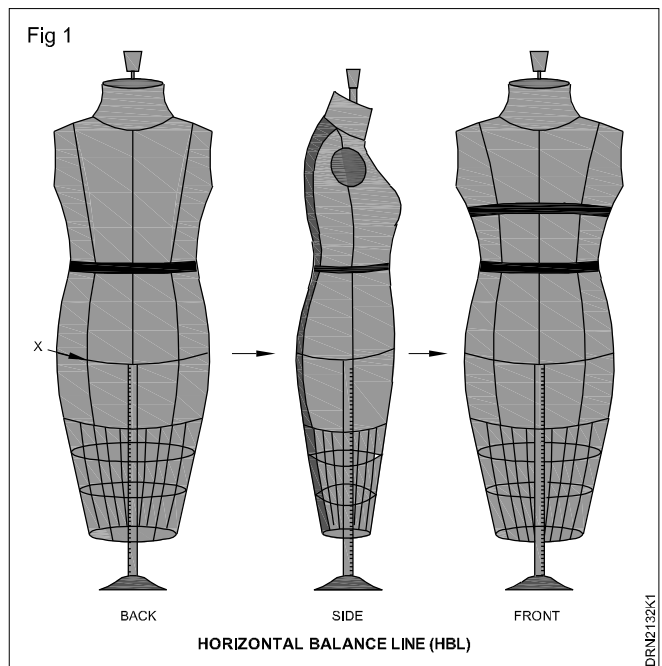
- 1 **Bust (1):** Measure across the bust points and back.
- 2 **Waist (2):** Measure around the waist.
- 3 **Abdomen (3):** Mark 3" below the waist line and measure around the marked portion using a measuring tape.
- 4 **Hip (4):** Measure widest area with tape parallel to the floor. Pin to mark hip level at centre front which is referred as x in the figure.



TASK 3: Take horizontal balance line (HBL) (Fig 1)

- 1 Measure from the floor to the pin mark (x) as centre front. (Fig 5)
- 2 Use this measure to measure up from the floor and pin mark centre back and side seams. Recheck the taken measurements.
- 3 Draw a line around the hip touching each of the pin marks, or place elastic around the hipline.
- 4 Pin elastic at each pinhead location.

The standard hip depth is 6 to 7 inches down from the centre front waist for juniors and petites, and 8 to 9 inches down for missy size.

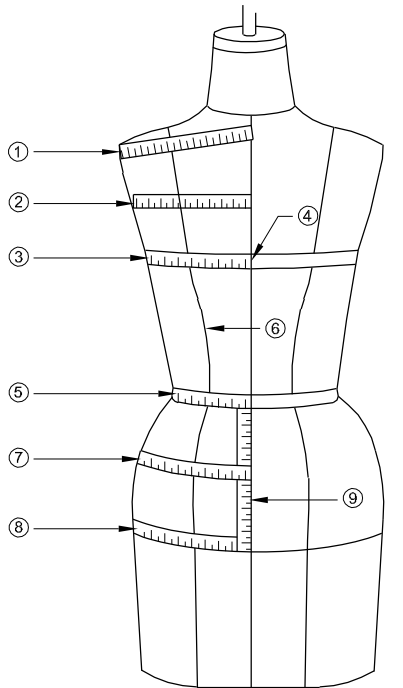


TASK 4: Take horizontal measurements

Front (Fig 1)

- 1 **Across shoulder (1):** Measure from shoulder tip centre front neck.
- 2 **Across chest (2):** Measure from centre front to 1' above the mid-armhole (pin marked).
- 3 **Bust Arc (3):** Measure from centre front, over bust point, ending 2" below arm plate at side seam.
- 4 **But span (4):** Place tape across bust points, divide in half for measurement.

Fig 1



FRONT HORIZONTAL MEASUREMENTS

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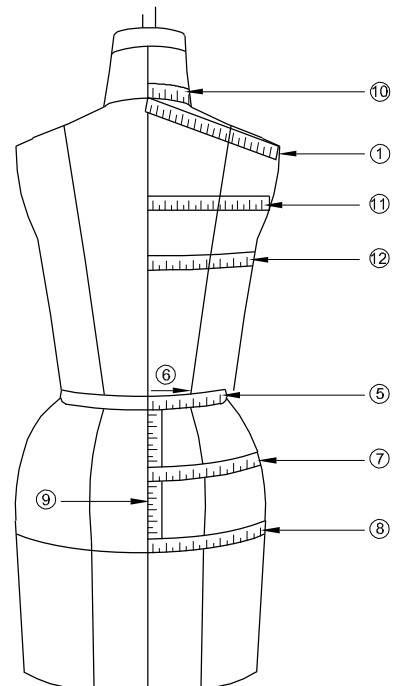
- 5 **Waist arc (5):** Measure from centre front waist to side waist seam.
- 6 **Dart placement (6):** Measure from centre front to side front (princess line).
- 7 **Abdomen arc (7):** Measure from centre front to side seam, starting 3" down from waist.
- 8 **Hip arc (8):** Measure from centre front to side seam on HBL line.
- 9 **Hip depth (9):** Measure from centre front to HBL line.

Back (Fig 2)

- 10 **Back neck (10):** Measure from centre back neck to shoulder at neck.
- 11 **Across shoulder (1):** Measure from shoulder tip to centre back neck.

- 12 **Across back (11):** Measure from centre back to 1" above the mid-armhole at ridge of pin head.
- 13 **Back arc (12):** Measure from centre back to bottom of arm plate.
- 14 **Waist arc (5):** Measure from centre back waist to side waist seam.
- 15 **Dart placement (6):** Measure from centre back waist to side back (princess line).
- 16 **Abdomen arc (7):** Measure from centre back to side seam, starting 3" down from waist.
- 17 **Hip arc (8):** Measure from centre back to side seam on HBL line.
- 18 **Hip depth (9):** Measure from centre back waist to HBL Line.

Fig 2



BACK HORIZONTAL MEASUREMENTS

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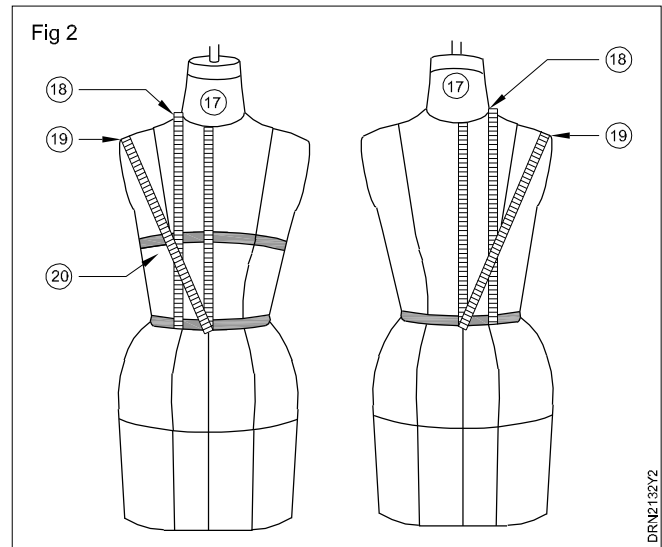
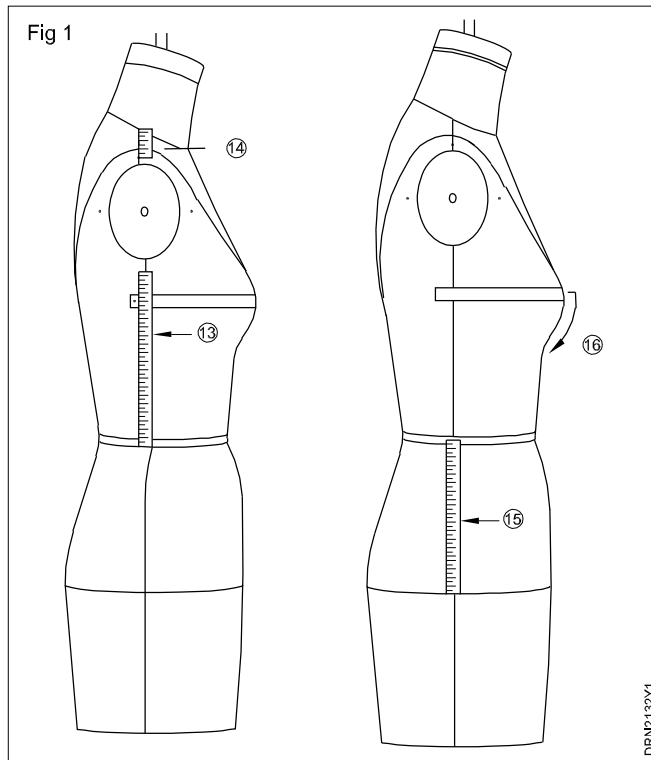
TASK 5: Take Vertical measurements (Fig 1)

Side view (Fig 1)

- 1 **Side length (13):** Pin mark below the arm plate at side seam to side waist.
- 2 **Shoulder length (14):** Measure from shoulder tip to neck.
- 3 **Side hip depth (15):** Measure from side waist to HBL, on side of form being measured.
- 4 **Bust radius (16):** Measure from bust point ending under bust mound.

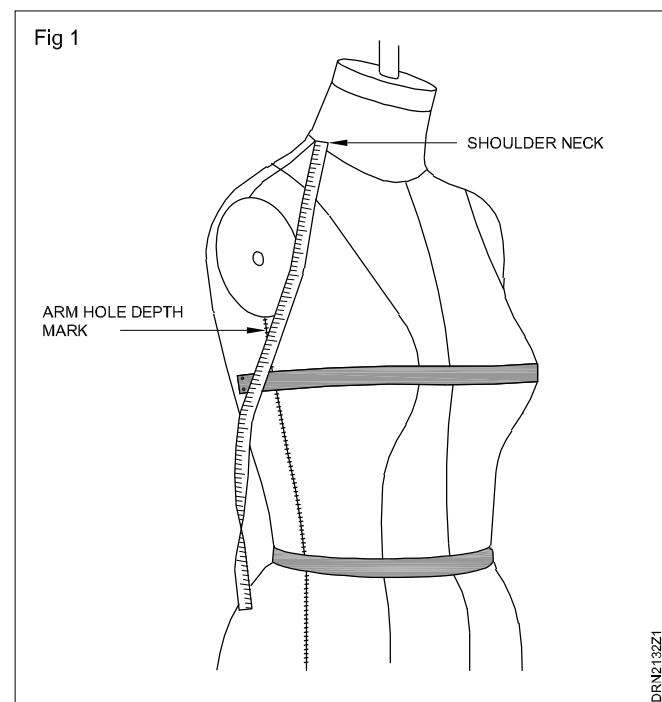
Front & Back (Fig 2)

- 5 **Centre length (17):** Measure from neck to waist (over bust bridge).
- 6 **Full length (18):** Measure from waist to shoulder at neck, Parallel with centre lines.
- 7 **Shoulder slope (19):** Measure from centre line at waist to shoulder tip (pin head mark).
- 8 **Bust depth (20):** Measure from shoulder tip to bust point and bust radius.



TASK 6: Take strap measurements (Fig 1)

- 1 **Strap front:** Place metal tip of measuring tape at shoulder/neck, and measure down to pinhead mark below armhole plate. Take measurement on the same side of the tape from neck to armhole.



Practice on different types spreadings, using different types of fabrics

Objectives: At the end of this exercise you shall be able to

- spread plain fabric - without right side & wrong side difference
- spread plain fabric - with right side & wrong side difference
- spread one way fabric - without right side & wrong side difference
- spread one way fabric - with right side & wrong side difference.

Requirements**Tools / Instruments**

- Cutting table - 1 No.
- Measuring tape - 1 No.
- Meter scale - 1 No.
- Scissors - 1 No.
- Cello tape - 1 No.
- Marking chalk - 1 No.

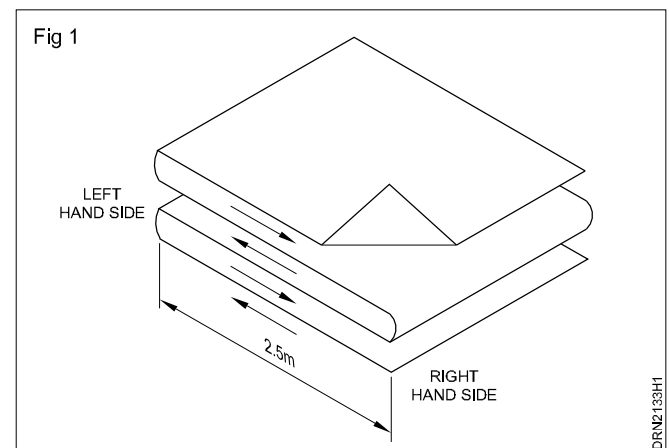
Materials

- Plain design fabric - 10 m.
- Plain design one side fabric - 10 m.
- One way fabric - 10 m.
- One way one side fabric - 10 m.

PROCEDURE**TASK 1: Spread plain fabric - without right side & wrong side difference**

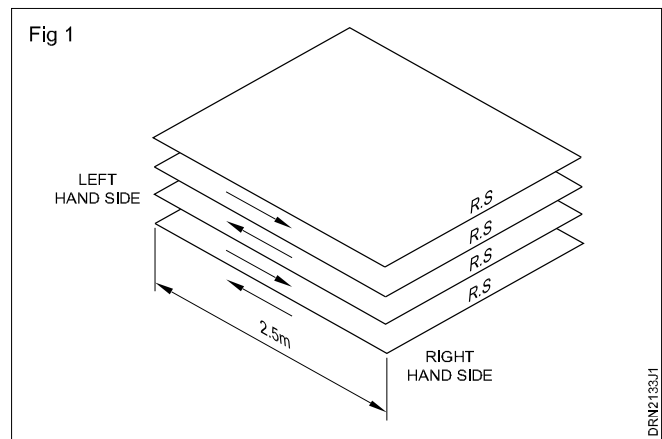
- 1 Place the plain fabric (without right side & wrong side difference) on the cutting table.
- 2 Take the one end of the fabric and measure 2.5m with the help of the measuring tape.
- 3 Mark the length at one selvedge with the help of marking chalk.
- 4 Spread the fabric on the cutting table right hand side to left hand side without wrinkles, Ensure that the both the selvedge of the fabric should be parallel to the table edges.
- 5 At the end of 2.5m, fold the fabric on cross wise straight and spread the fabric left to right on the first lay. Remove the wrinkles if any.
- 6 After reaching the 2.5m length at the right end, Fold the fabric on crosswise straight and spread the fabric right to left for the 3rd lay.

- 7 Continue this, for 4th lay also. (Fig 1)

**TASK 2: Spread plain fabric - with right side & wrong side difference**

- 1 Place the plain fabric (with right side & wrong side difference) on the Cutting table.
- 2 Identify the right side (Face side) of the fabric.
- 3 Take the one end of the fabric and measure 2.5m with the help of the measuring tape.
- 4 Mark the length at one selvedge on right side with the help of marking chalk.
- 5 Spread the fabric with right side up (Face up) on the cutting table from right hand side to left hand side without wrinkles, Ensure that the both the selvedge of the fabric should be parallel to the table edges.
- 6 At the end of 2.5m, fold the fabric on cross wise straight and cut the fabric on fold with sharp shears.
- 7 Now turn the fabric to the right side up (Face up) and spread the fabric left to right on the first lay. Remove the wrinkles if any.

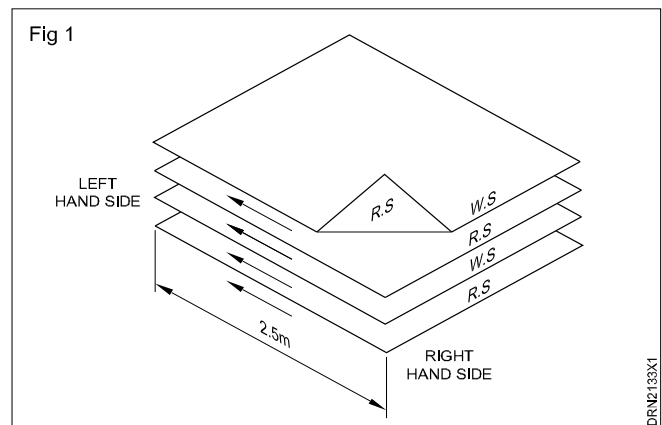
- 8 After reaching the 2.5m length at the right end, Fold the fabric on crosswise straight and cut the fabric on fold. Now turn the fabric to the right side up (Face up) and spread the fabric right to left for the 3rd lay.
- 9 Continue this, for 4th lay also. (Fig 1)



TASK 3: Spread one way fabric - without right side & wrong side difference

- 1 Place the one way fabric (without right side & wrong side difference) on the Cutting table.
- 2 Take the one end of the fabric and measure 2.5m with the help of the measuring tape.
- 3 Mark the length at one selvedge with the help of marking chalk.
- 4 Spread the fabric on the cutting table from right hand side to left hand side without wrinkles, Ensure that the both the selvedge of the fabric should be parallel to the table edges.
- 5 At the end of 2.5m, fold the fabric on cross wise straight and cut the fabric on fold with sharp shears.
- 6 Now again come to the right hand side and spread the fabric right to left on the first lay. Remove the wrinkles if any.

- 7 After reaching the 2.5m length at the left end, Fold the fabric on crosswise straight and cut the fabric on fold. Now again come to the right hand side and spread the fabric right to left for the 3rd lay.
- 8 Continue this, for 4th lay also. (Fig 1)

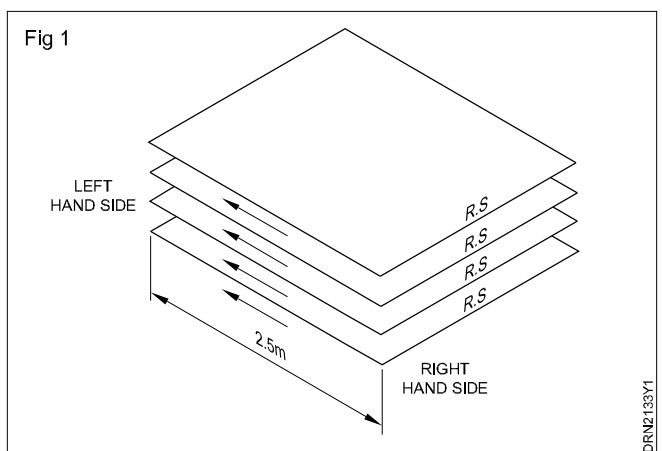


TASK 4: Spread one way fabric - with right side & wrong side difference

- 1 Place the one way fabric (with right side & wrong side difference) on the Cutting table.
- 2 Identify the right side (Face side) of the fabric.
- 3 Take the one end of the fabric and measure 2.5m with the help of the measuring tape.
- 4 Mark the length at one selvedge on right side with the help of marking chalk.
- 5 Spread the fabric with right side up (Face up) on the cutting table from right hand side to left hand side without wrinkles, Ensure that the both the selvedge of the fabric should be parallel to the table edges.
- 6 At the end of 2.5m, fold the fabric on cross wise straight and cut the fabric on fold with sharp shears.
- 7 Now turn the fabric to the right side up (Face up) and again come to the right hand side. Spread the fabric right to left on the first lay. Remove the wrinkles if any.
- 8 After reaching the 2.5m length at the left end, Fold the fabric on crosswise straight and cut the fabric on fold. Now turn the fabric to the right side up (Face up) and again come to the right hand side. Spread the fabric right to left for the 3rd lay.

- 9 Continue this, for 4th lay also. (Fig 1)

Get the work checked by your instructor.



Practice on different types of pattern layouts

Objectives: At the end of this exercise you shall be able to

- make the fabrics ready for layout
- practice on different types of pattern layouts.

Requirements			
Tools / Instruments		Materials	
• Shears	- 1 No	• Plain poplin fabric	- 3 metres
• Iron box	- 1 No	• Printed one way fabric	- 3 metres
• Cutting table	- 1 No	• Pattern set of different styles	- 6 Nos.
• Metre scale	- 1 No	• Sharp pins	
• Measuring tape	- 1 No		
• Pattern weights	- as reqd.		

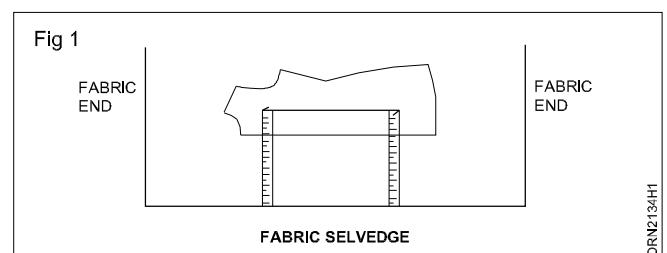
PROCEDURE

TASK 1: Make the fabrics ready for layout

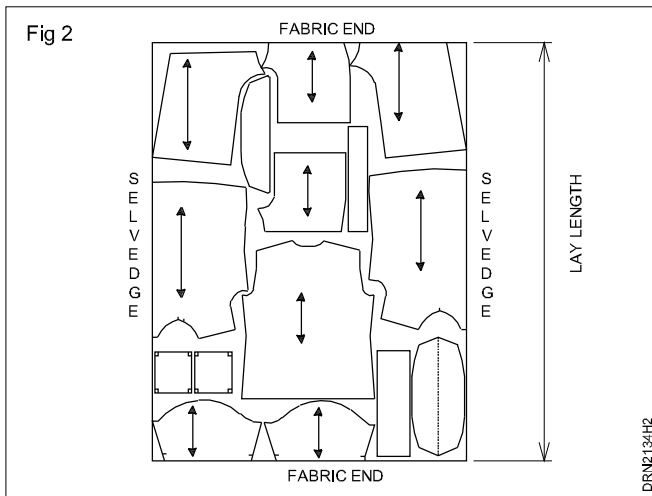
- 1 Place the fabrics on the cutting table.
- 2 Check the end of the fabrics. The ends should be straight along crosswise direction and perpendicular to the selvages. If not, cut the ends straightly with a sharp shears.
- 3 Check the perfection of the grains of the fabrics. If not, make the grain perfect by stretching method. For that, stretch the fabric at 45° angle on the both right to left and left to right directions to make the grain perfect.
- 4 Check the fabric that without any wrinkles. Otherwise, press the fabrics with an iron box to make them without creases and wrinkles.

TASK 2: Practice different types of pattern layouts

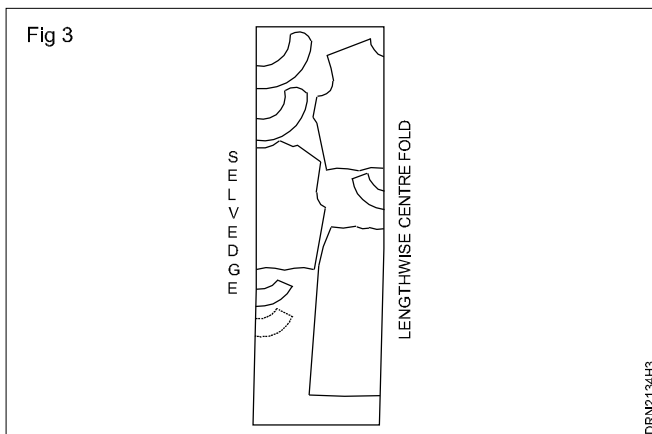
- 1 Place the poplin fabric right side up on the cutting table.
- 2 Check the ensure whether the fabric on the table is in straight condition. For that, ensure the selvages of the fabric should be parallel to the edges of the cutting table.
- 3 Take one set of patterns and check whether all the pieces are available.
- 4 Place pattern on the fabric. Start from one end of the fabric.
- 5 The patterns should be laid out on the grains that means in warp direction of the fabric weave.
- 6 Place the main and large patterns with wider ends at the cut ends of the fabric first.
- 7 Place the small pieces in the gaps of the large pattern pieces.
- 8 Use sharp pins or weights to keep the patterns stable on the fabric.
- 9 Take care to lay the patterns to the directions indicated by grain line marks.
- 10 Check the grain lines of the patterns are parallel to the selvages of the fabric. To ensure this, measure with the help of a scale and adjust the pattern so that both ends of the straight grain line are the same distance from the selvage and pin the pattern to the fabric along the grain line arrow. (Fig 1)
- 11 Place the patterns in an economical way. Lay pattern pieces close together.
- 12 Try to place many pieces as possible near the selvage ends for getting more free space.
- 13 Try to place the wider end of one pattern piece beside the narrow end of the another pattern piece.
- 14 Place the similar pattern pieces similar in shape next to each other.



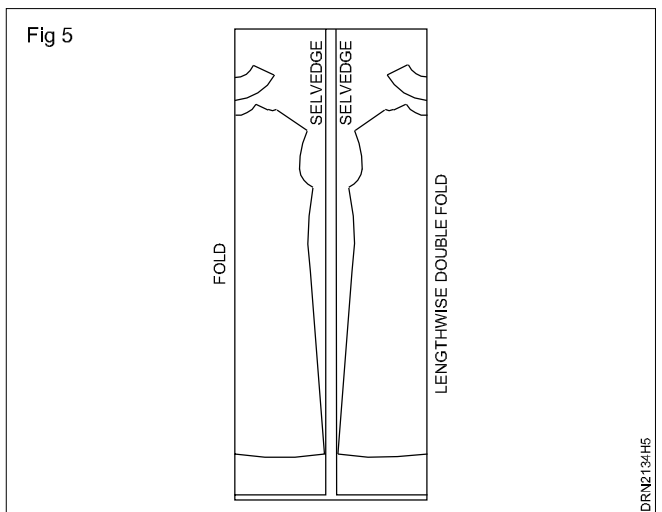
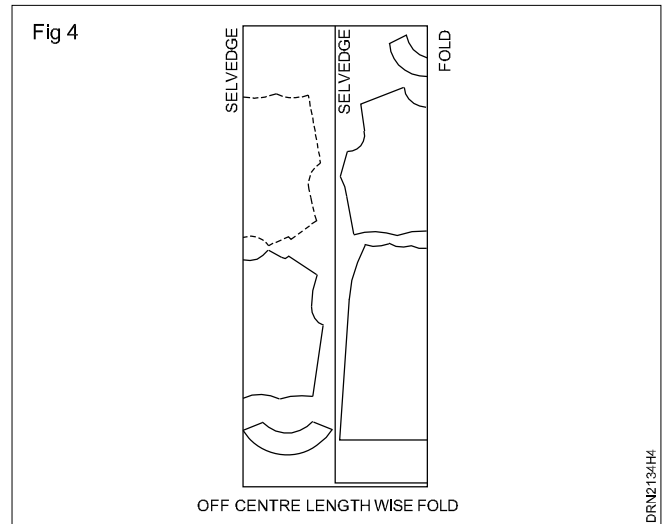
- 15 Check that all the patterns are laid out of the fabric.
Try to understand this **open layout** type and method.
- 16 Measure the lay length of fabric consumption with the help of a measuring tape from one end of the fabric to the end of the patterns that placed last in the other side of the fabric. (Fig 2)



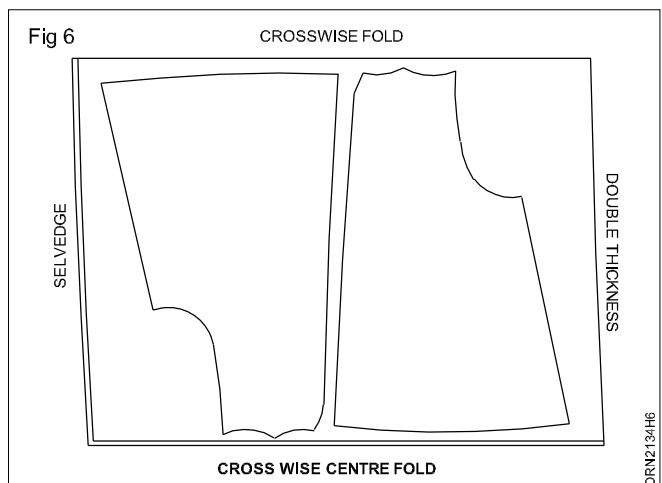
- 17 Try to do different layouts and note the lay length.
Finally select one pattern layout which gives the minimum fabric consumption. (Lay length)
- 18 Remove all the used pattern pieces.
- 19 Fold the fabric down the middle parallel to the selvages so that the selvages come together to get **lengthwise centre fold layout type**.
- 20 Use another set of patterns and follow the steps used in the open layout method.
- 21 Fold lines of the patterns should be kept on the folded edges of fabrics. (Fig 3)



- 22 Next, take a new set of patterns and make the fold of the fabric off centre and parallel to the selvage to get the **off centre lengthwise fold layout type**.
- 23 Make the pattern layout of this type. (Fig 4)
- 24 Fold the both selvages of the fabrics so that they can meet at the centre of the fabric width so as to get the **lengthwise double fold layout type**. (Fig 5)



- 25 Fold the fabric centre crosswise and practice the layout so as to get the crosswise centre fold layout. (Fig 6)



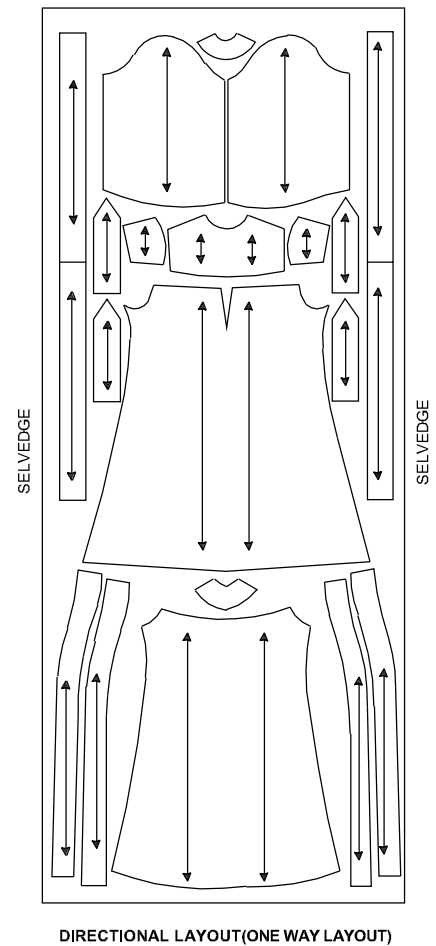
- 26 Place the printed one way fabric on the cutting table.
- 27 Follow the open layout method, but place all the pattern pieces in the same direction for getting directional layout or one way layout. (Fig 7)

Fold widthwise means to fold the material along the weft line ie., the fold will appear in widthwise direction but will part the length of the material.

Fold lengthwise means to fold the material along the warp line ie., the width of the material is folded parallel to the selvedge.

Get the work checked by your instructor.

Fig 7



DRN2134H7

Construct a childrens wear and teenager wear

Objectives: At the end of this exercise you shall be able to

- stitch a frock with umbrella skirt
- construct pattern for bodice with tucks
- manipulate the pattern for flat collar
- layout the components of garment on different width
- make circular hem on skirt bottom
- prepare the short bell sleeves.

Requirements

Tools / Instruments

- | | | | |
|------------------|---------|---------------------------------------|----------|
| • Cutting table | - 1 No. | • One way fabric | - 10 m. |
| • Measuring tape | - 1 No. | • One way one side fabric | - 10 m. |
| • Meter scale | - 1 No. | • 165 x 0.92 cm poplin, cotton, satin | |
| • Scissors | - 1 No. | • Matching color thread | - 1No. |
| • Cello tape | - 1 No. | • Needle | - 1No. |
| • Marking chalk | - 1 No. | • 6 buttons | - 1Reqd. |
| | | • Canvas | - 1Reqd. |

Materials

- | | |
|--------------------------------|---------|
| • Plain design fabric | - 10 m. |
| • Plain design one side fabric | - 10 m. |

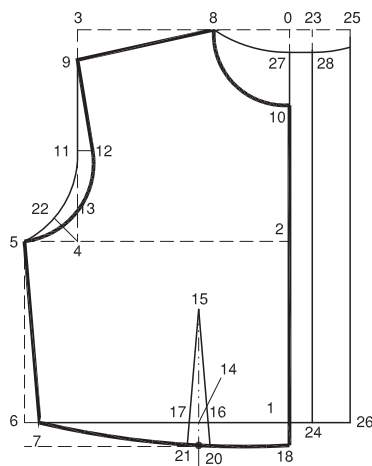
Fig 1



Measurements (6 years)	Material
Full length = 56 cm	1.70 x 0.90 m (2.20 x 0.70 m) Terycot/Poplin
Natural waist = 26 cm	0.25 x 0.25 m Longcloth (for collar interlining)
Neck = 28 cm	3 buttons
Shoulder = 28 cm	
Chest = 60 cm	
Waist = 56 cm	
Sleeve length = 15 cm	

Fig 2

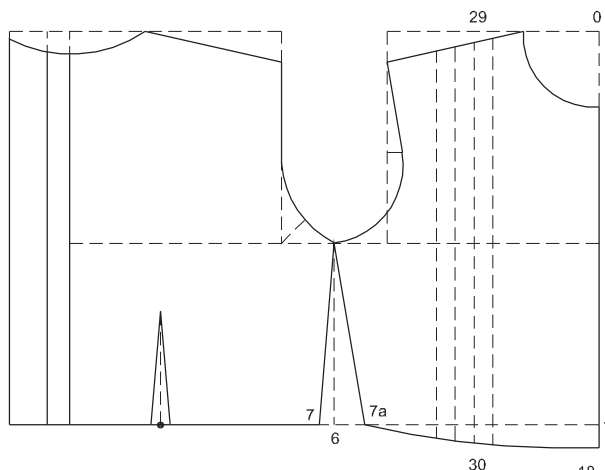
INSTRUCTIONS FOR DRAFTING



FRONT AND BACK

Shape 7-21

- 4-22 = $\frac{1}{2}$ of 4-5
+ 0.75 cm
- 0-23 = 1.25 cm
- 23-25 = 2.5 cm
- 0-27 = 23-28 = 1 cm
- Divide angle 4-5-3
Shape 9-11-22-5 (back arm-hole)
- Extend the line 3-0, 6-1
Square down from 23 and mark 24
Square down from 25 and mark 26
Shape 8-27-28 reverse the shape of 28-8 and mark 29



Front

- 0-1 = NW
- 0-2 = $\frac{Ch}{4} - 1$ cm
- 0-3 = $\frac{Sh}{2}$
- 2-5 = $\frac{Ch}{4} + 2.5$ cm
- 6-7 = 2 cm
- 0-8 = $\frac{Ch}{12}$
- 3-9 = $\frac{Ch}{36}$
- 0-10 = $\frac{Ch}{12} + 0.75$ cm
- 9-11 = $\frac{1}{2}$ of 9-4
- 11-12 = 1 cm
- 4-13 = 2 cm
- 1-14 = $\frac{Ch}{12} + 1$ cm
- 14-15 = $\frac{Ch}{8}$
- 14-16 = 14-17 = 0.75 cm
- 1-18 = 1.0 cm
- 14-19 = 1.0 cm
- Square out horizontally and vertically from 0
- Square out from 1
- Square out from 2
- Square down from 3 and mark 4
- Square down from 5 and mark 6
- Join 5-7
- Join 8-9
- Shape 8-10 (front neck)
- Square in
- Shape 9-12-13-5 (front arm-hole)
- Square up from 14
- Join 14-15
- Join 15-16, 15-17
- Square out from 18
- Extend the line of dart and mark point 20 and 21

Tucks in front

- 0-29 = 18-30
- Join 29-30, mark 4 points at a = $\frac{Ch}{12} + 2$ cm distance of 1.25 cm from line 29-30 respectively towards arm hole (position after stitching the tucks).

Draw parallel lines in vertical direction.

Copy the outline of front bodice.

Slash the copy of front part of bodice from 29-30. Paste the two parts on other sheet of brown paper, leaving 2 cm space in between (additional material for preparing 4 tucks i.e. 0.5 cm for each tuck).

Take care to maintain the level of chest line.

Now cut the front pattern 10-8-9-12-13-5-7-19-18-10.

Don't mark dart.

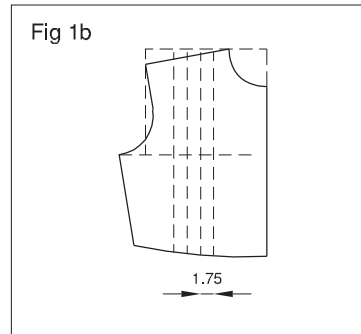
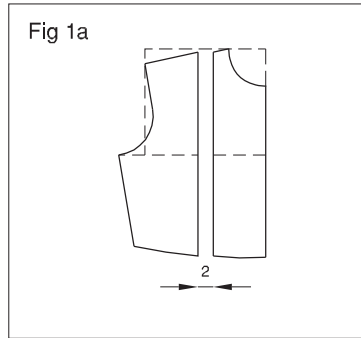
Cut the back pattern 27-8-9-11-22-5-7-17-16-1-2-27.

Mark waist dart

Cut along the outlines. (Fig 1a)

Mark tuck position at a distance of 1.75 cm between each. Set notches on top and bottom. (Fig 1b)

The unslashed pattern on the bodice piece with the tuck will serve as a correction pattern, i.e. after preparing the tucks on the bodice piece shape should be congruent with the manipulated pattern.



Skirt

$$0-1 = \frac{W}{8}$$

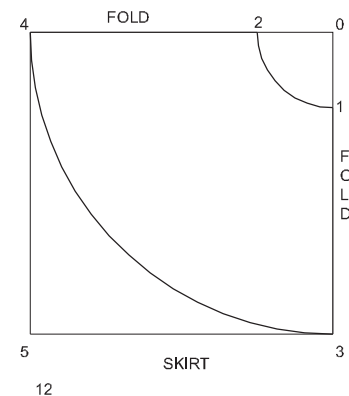
$$0-2 = \frac{W}{8}$$

$$1-3 = 2-4 = FL - NW$$

Square out horizontally and vertically from 0.

Draw a square 0-1-2-3

Put one end of measuring tape/cord on point 0 and draw a quarter circle from 4-5 upto point 4 and sweep up to point 5. Repeat the same to draw a quarter circle from 1-3.



Collar

Note: Due to the shoulder slope the shape of collar has to be shifted back. The dotted lines in the draft show the position without shoulder slope. The solid lines show the modified position.

Draw the front and back of bodice joining on shoulder line.

$$10-31 = 8-32 = 27-33 = \frac{Ch}{12} + 1 \text{ cm}$$

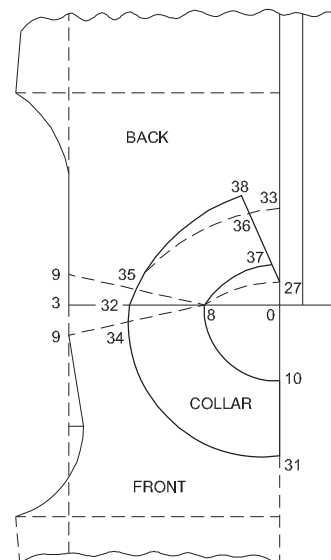
Shape 31-32 with circle, shape 32-33 parallel to 8-27
Mark point 34&35 on cutting point of shoulder line

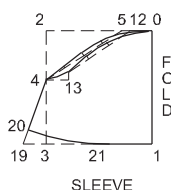
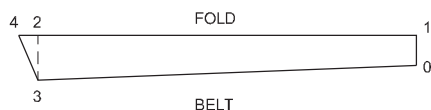
$$33-36 = 34-35$$

Join 27-36

$$27-37 = 36-38 = 32-35 \text{ (measured in straight distance)}$$

Join 36-38. Shape 8-37 for back neck and 35-38 for collar shape





Side belt

Square out horizontally and vertically from 0.

$$0-1 = 4 \text{ cm}$$

$$0-2 = \frac{2}{3} \text{ ch} + 10 \text{ cm}$$

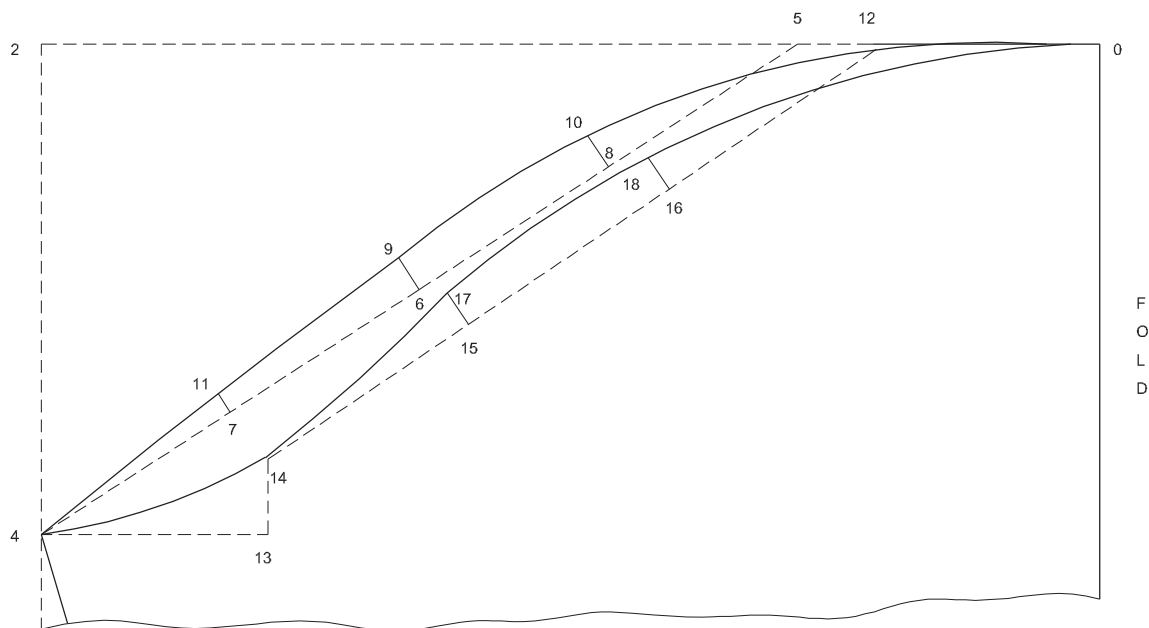
$$2-3 = \frac{\text{ch}}{12} + 1 \text{ cm}$$

$$2-4 = 2.5 \text{ cm}$$

Square down from 2

Join 1-3

Join 3-4



ENLARGED DETAIL OF SLEEVE CROWN

Sleeve

$$0-1 = \text{SL}$$

$$0-2 = \frac{\text{Ch}}{4} - 1 \text{ cm}$$

$$2-4 = \frac{\text{Ch}}{12} + 1.5 \text{ cm}$$

$$0-5 = \frac{\text{Ch}}{12} - 1 \text{ cm}$$

$$7-11 = 0.3 \text{ cm}$$

$$6-9 = 0.5 \text{ cm}$$

$$8-10 = 0.5 \text{ cm}$$

$$5-12 = 1 \text{ cm}$$

$$4-13 = 3 \text{ cm}$$

Square out horizontally and vertically from 0

Square down from 2 and mark 3

Join 4-5

Divide 4-5 into four equal parts and mark 6,7 and 8

Square up from 7

Square up from 6

Square up from 8

Shape 4-11-9-10-0 (back shape of sleeve)

Square up from 13

$$13-14 = 1 \text{ cm}$$

$$15-17 = 16-18 = 0.5 \text{ cm}$$

$$3-19 = 3 \text{ cm}$$

$$19-20 = 2 \text{ cm}$$

$$19-21 = \frac{1}{2} \text{ of } 1-19$$

Join 12 and 14

Divide 12-14 in 3 equal parts and mark 15 and 16

Square up from 15 and 16

Shape 4-14-17-18 and 0 (front shape of sleeve)

Join 19-4

Shape 20-21-1

The shape of sleeve crowns proportionately will be the same in all the garments stitched. The exact measurement given shall help you to shape the crown initially, but also try to draw the shape free hand for practice.

INSTRUCTIONS FOR MASTER PATTERN

Front and back bodice piece

neck, shoulder, arm hole	0.75 cm
side seam	2.5 cm
waistline	1 cm

Skirt

waistline	1 cm
for bottom turning	3 cm

Sleeves

top	0.75 cm
underarm side	2.5 cm
bottom	1.5 cm

Collar

0.75 cm all around

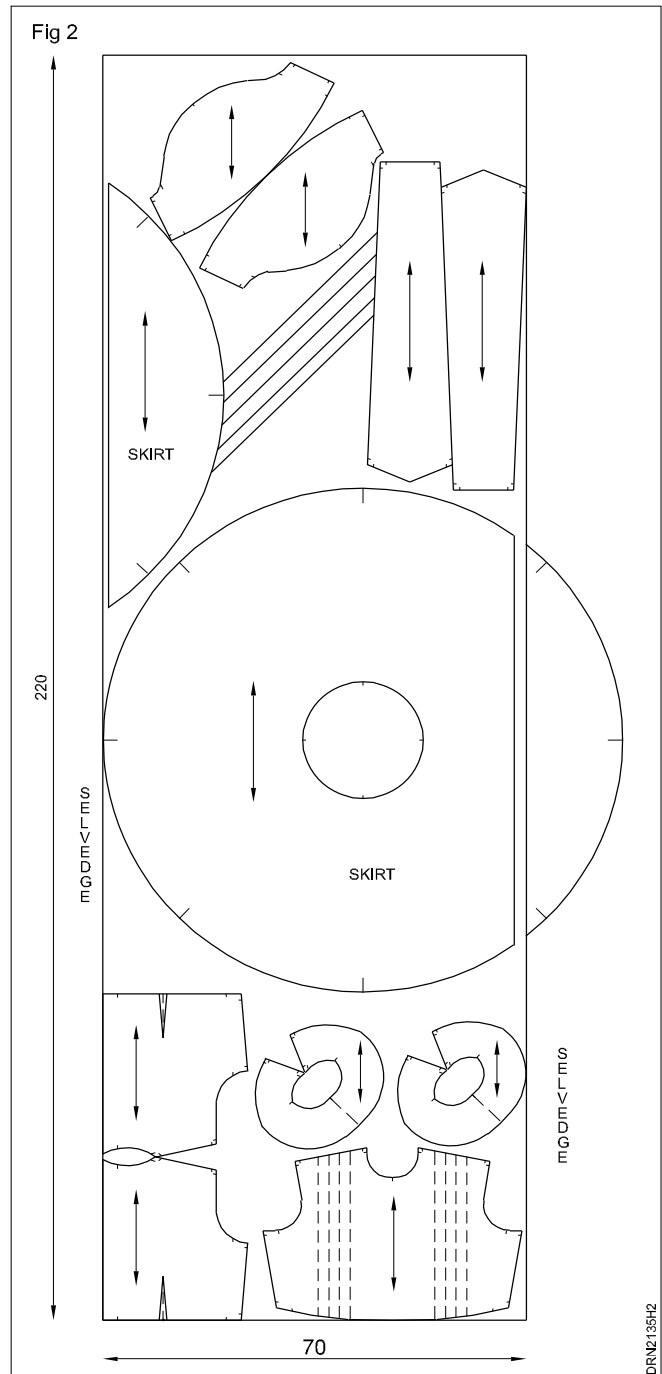
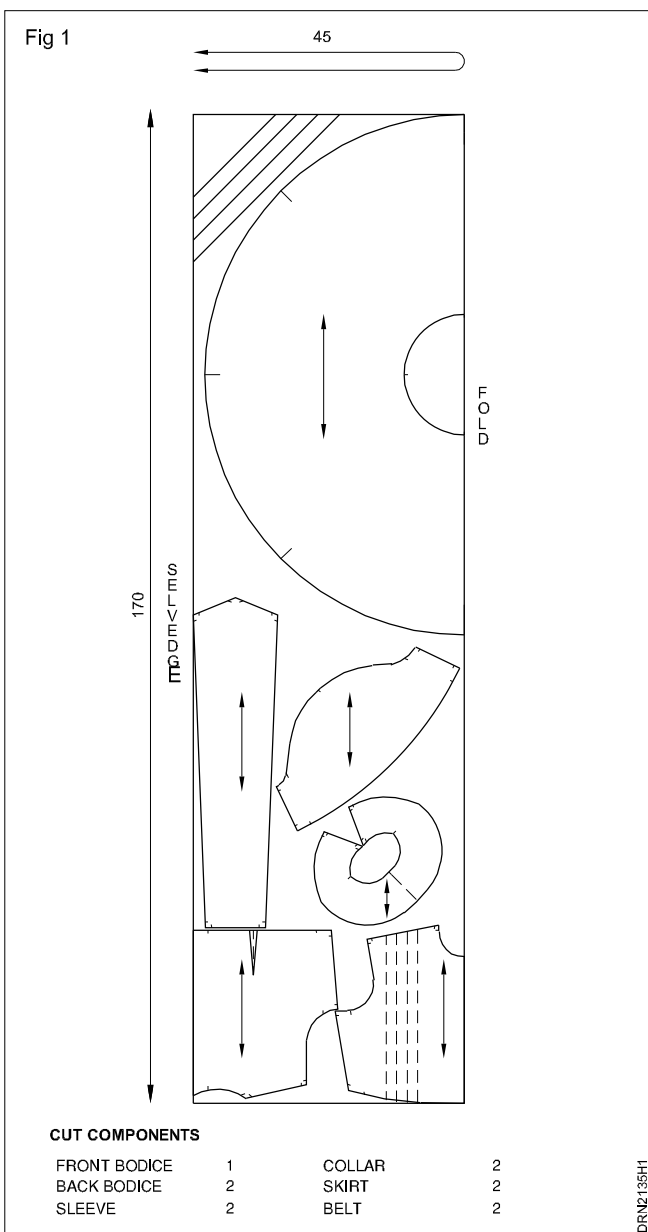
Waist belt

One collar is to be cut from Longcloth, used as interlining.

PROCEDURE

TASK 1: Estimation of fabric

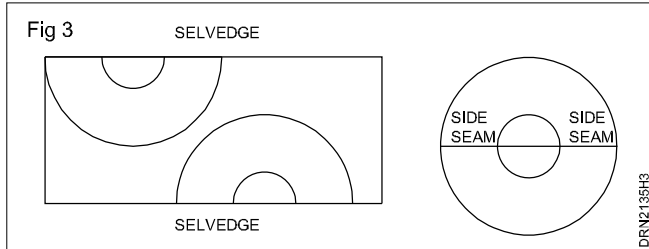
- 1 Draft the pattern along with the draft and instructions for drafting & Layout.
- 2 Prepare the master pattern. (Fig 1)



- 3 Select the layout according to the width of cloth. (Fig 2)

Take care that centre of sleeves and collar have to be placed on bias, i.e. 45° angle to warp/weft line. The centre of belt piece has to match with warp line.

- 4 If the size is too big for the width of cloth prepare skirt with 2 side seams. Place side seams along the grains. (Fig 3)



- 5 Transfer all marks. Cut on the lines.
- 6 Stitch the tucks on both sides in front on marked lines. After stitching the tucks, check the shape once more with the front pattern of bodice, trim the edges if necessary.

- 7 Stitch the darts in back.
- 8 Prepare the body part.
- 9 Prepare and attach the collar on neck line.
- 10 Hem 1 cm wide the sleeve bottom by slip stitches.
- 11 Stitch under arm seam of the sleeve.
- 12 Attach sleeves with set-in-sleeve method.
- 13 Finish the skirt bottom with 3 cm wide circular hem.
- 14 Baste and stitch the skirt with body matching centre and sides.
- 15 Make three button holes and tack buttons at the back placket.
- 16 Trim off the thread ends and press.

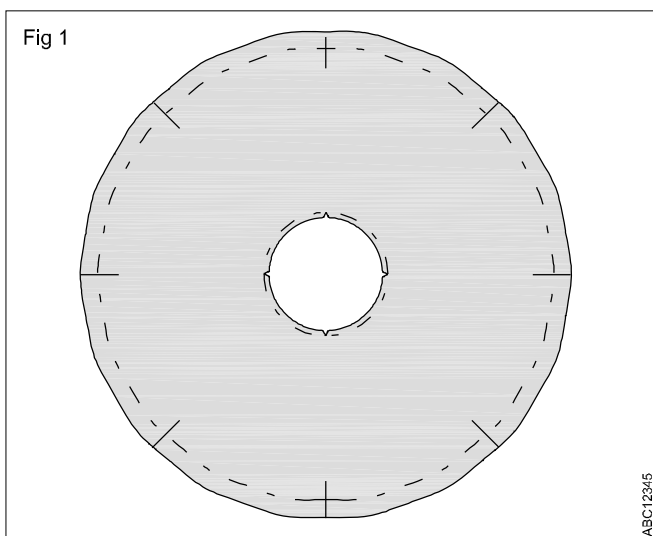
Skill Sequence

Circular hem

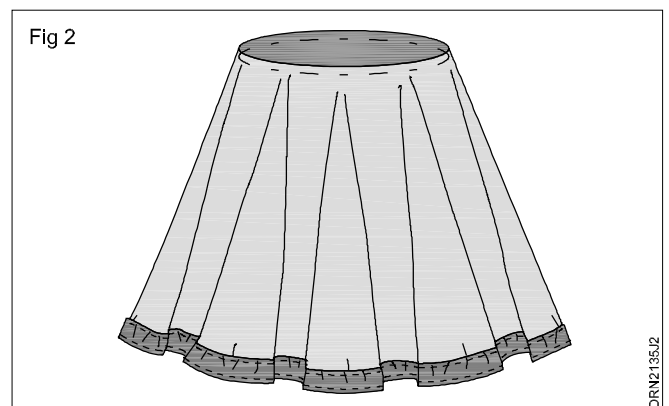
Objective: This shall help you to

- **prepare a circular hem.**

- 1 To hem the flare of an umbrella-cut frock you have to maintain the width of the bottom.
- 2 Divide the flare into 8 equal parts by folding. Set marks on bottom + 6 cm long. Mark fold for hem, 3 cm from bottom edge. (Fig 1)



- 4 Turn the raw edge 2.5 cm inside. Match the marks of turned edge with marks of lower layer. In this way some gathers will appear for the adjustment of girth. Pin in the middle of turning on all the marks. Slightly pull threads of ease stitching and distribute the material evenly to adjust the excess material. Baste and press on fold.
- 5 Baste the whole girth over turning (be careful that marks are matching). Remove pins and press. Hem with narrow hemming. Remove basting and ease stitches and press. (Fig 2)



- 3 Fold the material by 0.5 cm (matching marks) and make ease stitch on folded edge.

Construct a childrenwear - style II

Objectives: This shall help you to

- draft and stitch a combination suit
- finish waistline with elastic in back and waist band in front.

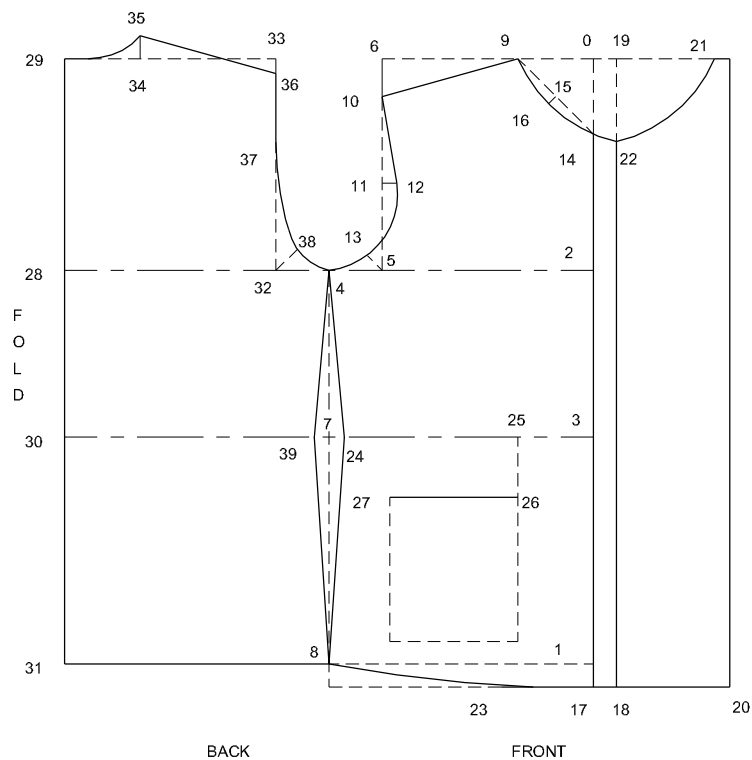
Fig 1



Measurements (5 years)		Material
Top		1.20x0.90 m Poplin/Terrycot (plain or small design)
Full length	= 41 cm	0.30x0.90 m Poplin/Terrycot (of contrasting colour)
Natural Waist	= 28 cm	0.70 x 0.75 cm Elastic
Neck	= 28 cm	5 buttons
Shoulder	= 28 cm	
Chest	= 60 cm	
Waist	= 56 cm	
Sleeve length	= 14 cm	
Sleeve round bottom	= 26 cm	
Shorts		
Full length	= 25 cm	
Waist	= 56 cm	
Hip	= 60 cm	
Round bottom	= 42 cm	

Fig 2

INSTRUCTIONS FOR DRAFTING



Top (Front)

0-1 = FL
 0-2 = Ch/4 - 1 cm
 0-3 = NW
 2-4 = Ch/4 + 2.5 cm
 2-5 = Sh/2

0-9 = Ch/12
 6-10 = Ch/24
 5-11 = 1/2 of 10-5
 11-12 = 1 cm
 5-13 = 1/2 of 4-5

0-14 = Ch/12
 9-15 = 1/2 of 9-14
 15-16 = 0.75 cm
 1-17 = 2 cm

17-18 = 1.25 cm

Square out vertically and horizontally from 0
 Square out from 1

Square out from 2 and 3

Square up from 5 and mark 6
 Square down from 4 and mark 7 and 8

Join 9-10
 Square out from 11
 Divide angle 10-5-4
 Shape 10-12-13-4
 (front armhole)

Join 9-14
 Square out from 15
 Shape 9-16-14
 Square out from 17
 Square out from 0
 Square up from 18 and mark 19

18-20 = Ch/12 + 1.5 cm

18-23 = 18-20
 7-24 = 1 cm
 3-25 = Ch/12
 25-26 = Ch/12 - 1 cm
 26-27 = Ch/6 - 1 cm

Top (Back)

4-28 = 2-4

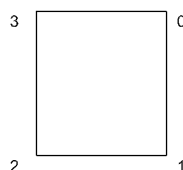
28-32 = Sh/2
 29-34 = Ch/12
 34-35 = 1.5 cm
 33-36 = 1 cm
 36-37 = 1/2 of 33-32
 32-38 = 1/2 of 32-4 + 0.75 cm
 7-39 = 1 cm
 Pocket

Square up from 20 and mark 21
 Extend the shape 9-16-14 and mark 22
 Reverse the neck shape from 22

Shape 8-23-17
 Join 4-24 and 24-8
 Square down from 25

Pocket mouth

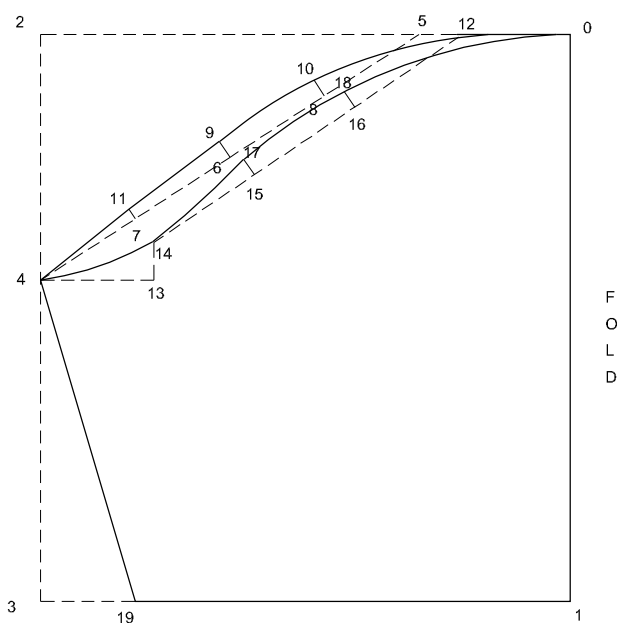
Square up and down from 28 and mark 29, 30, 31
 Square up from 32 and mark 33
 Square up from 34
 Shape 29-35 (back neck)
 Join 35-36
 Divide angle 36-32-4
 Shape 36-37-38-4
 Join 4-39 and 39-8



POCKET

0-1 = Ch/6
 1-2 = Ch/6 - 1 cm

Square out horizontally and vertically from 0
 Square out from 1
 Square up from 2 and mark 3



ENLARGED VIEW OF SLEEVE

Sleeve

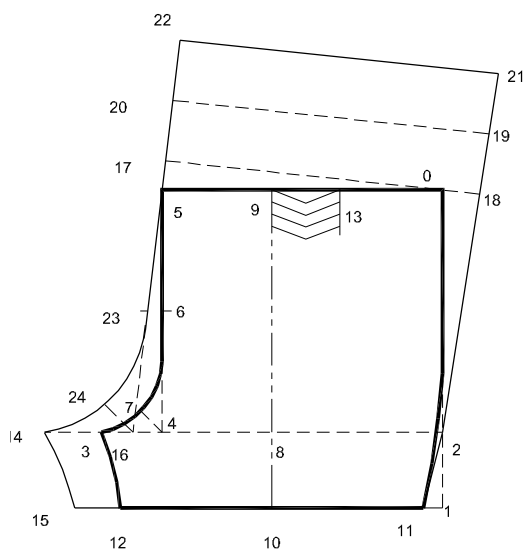
0-1 = SL
0-2 = Ch/4 - 1 cm
2-4 = Ch/12 + 1.5 cm
0-5 = Ch/12 - 1 cm

7-11 = 0.3 cm
6-9 = 0.5 cm
8-10 = 0.5 cm
5-12 = 1 cm

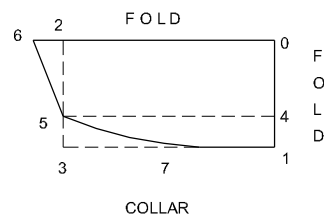
Square out horizontally and vertically from 0

Square down from 2 and mark 3

Join 4-5
Divide 4-5 into four equal parts and mark 6, 7 and 8
Square up from 7
Square up from 6
Square up from 8
Shape 4-11-9-10-0 (back shape of sleeve)



SHORT (FRONT & BACK)



COLLAR

Collar

0-1 = Ch/12 + 2 cm
0-2 = N/2
1-3 = 0-2
1-4 = 2 cm
3-5 = 2 cm
2-6 = 2 cm
1-7 = Ch/12

Square out horizontally and vertically from 0

Square down from 2

Join 4 and 5
Join 6 and 5
Shape 5-7-1

4-13 = 3 cm
13-14 = 1 cm

Square up from 13
Join 12 and 14
Divide 12-14 in 3 equal parts and mark 15 and 16
Square up from 15 and 16

15-17 = 16-18 = 0.5 cm

Shape 4-14-17-18 and 0 (front shape of sleeve)

3-19 = 2.5 cm

Join 4 and 19

Note: The shape of sleeve crowns proportionately will be the same in all the garments stitched. The exact measurement given shall help you to shape the crown initially, but also try to draw the shape free hand for practice.

Short (Front)

0-1 = FL
0-2 = H/3 - waist band
2-3 = H/3 + 2.5 cm
3-4 = H/12 - 1 cm
4-6 = 1/2 of 4-5
4-7 = 1/2 of 3-4
3-8 = 1/2 of 3-2

Square out horizontally and vertically from 0

Square out from 1

Square out from 2

Square up from 4 and mark 5
Divide angle 3-4-6
Shape crotch 5-6-7-3
Square up and down from 8 and mark 9-10

10-11 = 10-12 = B/4 - 0.75 cm
9-13 = 0-5 - W/4

Shape 3-12, 2-11

Short (Back)

3-14 = H/16
12-15 = 3 cm
3-16 = 1/2 of 3-4
5-17 = 2 cm
0-18 = 2.5 cm
18-19 = 17-20 = 4 cm
19-21 = 20-22 = 4 cm
16-23 = H/6
16-24 = 1/2 of 16-14

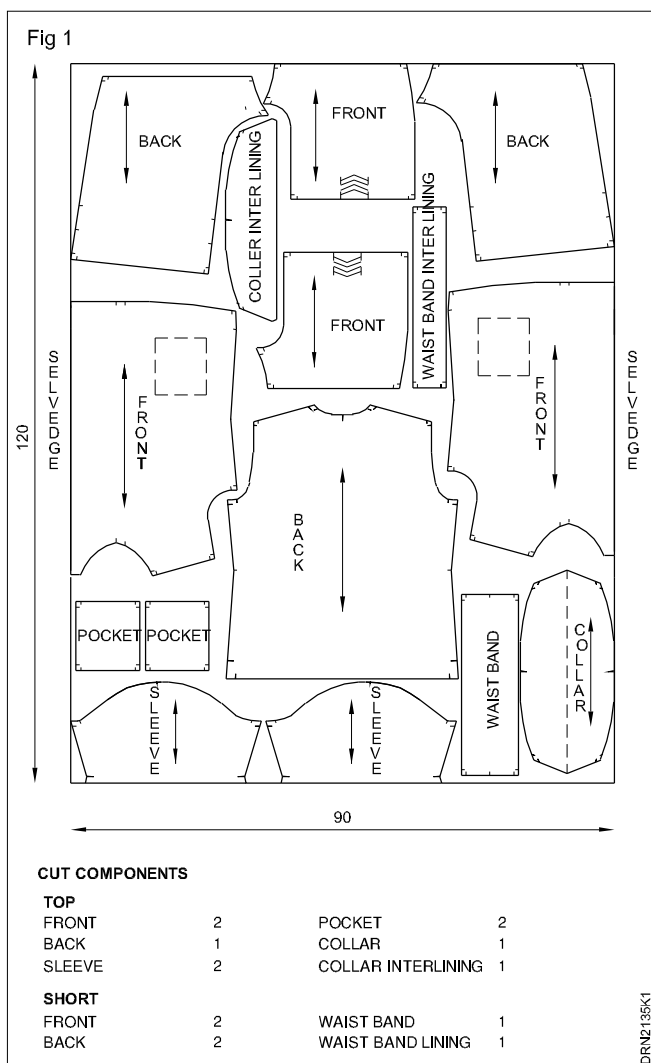
Extend line 2-3 and 11-12

Shape 14-15
Join 16-5 and extend
Join 17-0 and extend
Shape 11-2-18 and extend
Join 20-19
Join 21-22
Divide angle 23-16-14
Shape 17-23-24-14

	Waist band 0-1 = 4 cm 1-2 = W/2	Square out horizontally and vertically from 0 Square out from 1 Square up from 2 and mark 3
--	--	--

INSTRUCTIONS FOR MASTER PATTERN	Collar and pocket 0.75 cm all around
Top	Short
shoulder, armhole, neck 0.75 cm	waistline, bottom line 0.75 cm
side 1 cm	Crotch
bottom hem 3 cm	side seam 1 cm
Sleeve	Waist band
sleeve top, sleeve bottom 0.75 cm	waistline 0.75 cm
side 1 cm	sides 1 cm

1 Draft the combination suit according to the given measurements and instructions. (Fig 1)



2 Cut master pattern. Layout on wrong side of the cloth, mark and cut all components.

3 Cut bias strips from contrasting colour, 4 cm wide, join them to get as much length as required for the sleeve bottom and pocket mouths. Prepare bias strip of 6 cm of width for the bottom of short.

4 Prepare pockets with contrasting bias facing.

All facings will be turned to right side of the garment since they have decorative purpose.

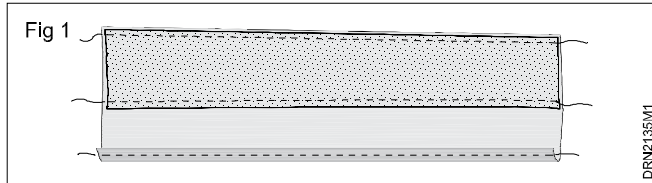
- Fix pocket on marked position on front part of the top.
- Join the shoulder seam of front and back.
- Prepare and attach collar with neck.
- Prepare sleeve bottom with bias facing of contrasting colour material. (Turn facing to right side.)
- Attach sleeve with set-in-sleeve method to body part.
- Stitch side seam and under arm seam of sleeve.
- Turn bottom hem and finish.
- Mark, cut and make bottom holes.
- Tack buttons.
- Finish inside seams by overlock.
- Finish and press the top.
- Stitch front pieces on crotch line of the shorts with right sides together.
- Fix pleats on the waistline of both front pieces.
- Finish the waistline.
- Finish bottom of short with contrasting bias facing (turn facing to right side).
- Join inside leg seam.
- Finish the inside seams with overlock.
- Finish and press the shorts.

Waistline with elastic

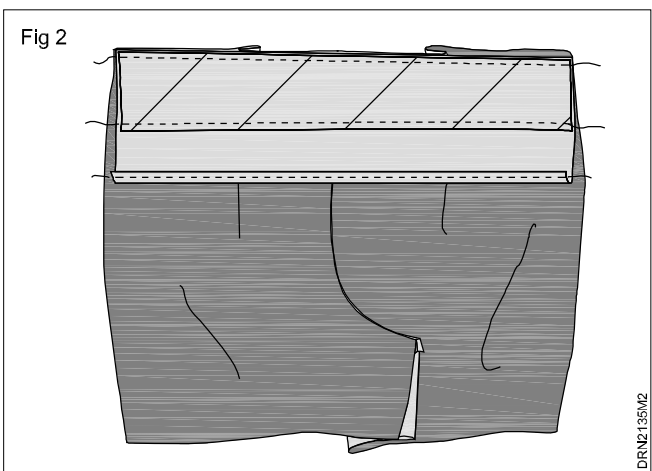
Objective: This shall help you to

- finish the waistline with waist band in front and fold down casing with elastic in back.

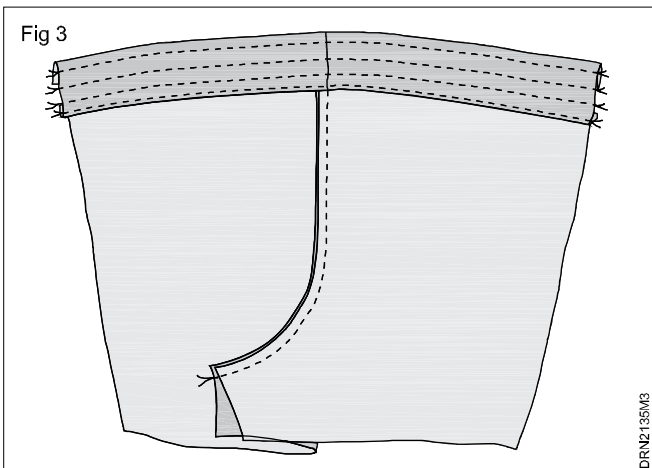
- 1 Place the interlining piece on the wrong side of waist band matching centre line and raw edge. Baste. Turn the other raw edge by 0.75 cm and baste. (Fig 1)



- 2 Place waist band on front of waist line with right sides together, baste and stitch with machine 0.75 cm away from raw edges. (Fig 2)



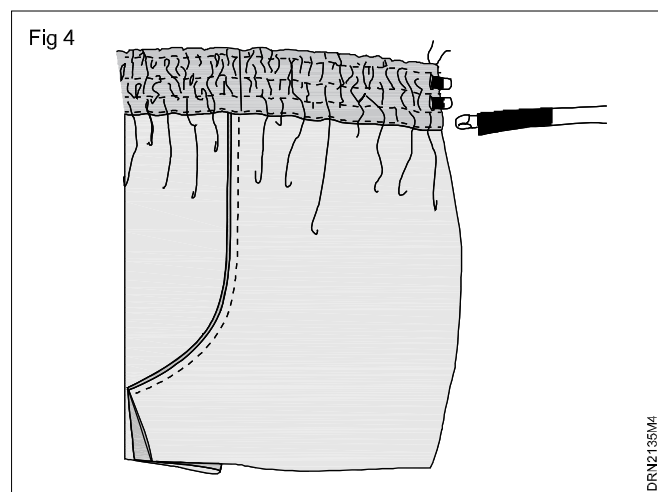
- 3 Stitch back pieces on seat seam line with right sides of fabric together.
- 4 Turn casing on waistline to wrong side of short. Fold lower raw edge by 0.5 cm inside and stitch through all layers.
- 5 Stitch on the top edge of casing, leaving 0.75 cm from edge. Stitch another two parallel seams each at a distance of 1 cm. (Fig 3)



- 6 Cut 3 strips of elastic each 22 cm long

$$\left(\frac{\frac{2}{3}H}{2} + 2 \text{ seam allowances} \right) = 22 \text{ cm for one strip}$$

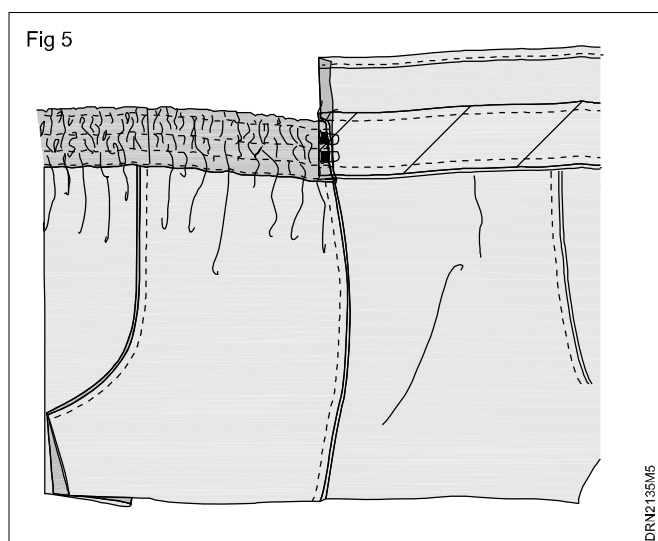
- 7 Fix safety pin on one end of strip and insert it in one of the three channels. Make single tacks on one side of strip and pin it at the other side for fixing. Repeat the process with the other two strips. Stitch with machine over all the strips on both sides. Remove pins. Distribute the material evenly on the channels. (Fig 4)



- 8 To finish the side seam, place front on back with right sides of fabric together and raw edges matching. Seam along the raw edges.

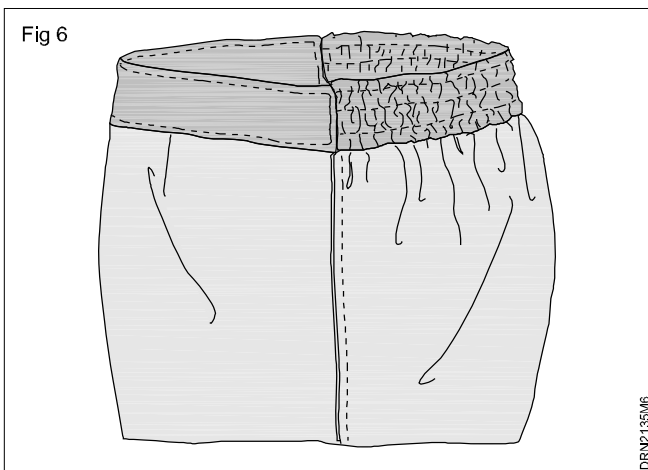
Note: Take care that balance marks are matching.

- 9 Press seam allowance towards front. (Fig 5)

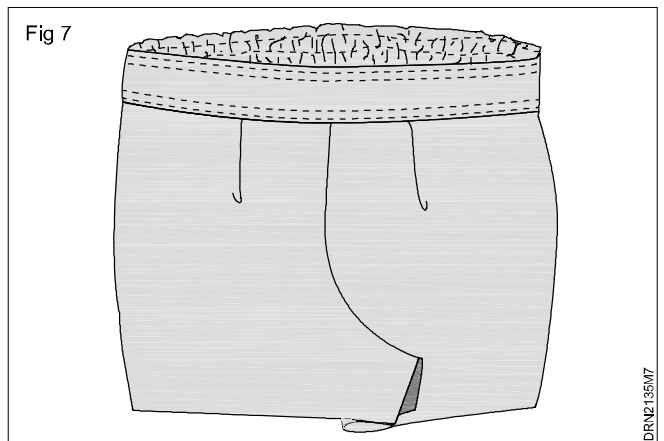


10 Repeat the process for the other side seam.

11 Fold the waist band from centre. Cover the seam line of waist and baste. (Fig 6)



12 Finish the waist band with double row of stitches all around, 0.5 cm from each other. (Fig 7)



Construct a ladies' tops

Objectives: This shall help you to

- draw a paper pattern of ladies' tops with full sleeve and open collar
- draw a master pattern
- lay and cut tops on fabric
- construct a ladies' top.

Measurements

• Chest	- 87 cm.	• Waist length	- 36 cm.
• Waist	- 68 cm.	• Shoulder	- 38 cm.
• Full length	- 61 cm.	• Sleeve length	- 87 cm.

Sketch different types of tops

- 1 Sketch the different types of tops given in the following figures (Fig 1 and Fig 2 (a,L) using 2H pencil in the cartridge paper, use fine pencil lines for easy corrections.
- 2 Take necessary corrections after completing the sketches.
- 3 Draw the sketches with black fine liner.
- 4 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Kameez is also referred to as kamiz or qamiz. Kameez is a long shirt or tunic, with short slits at either side of them, known as the cheek. This leaves the wearer with freedom of movement and ease of wear.

The kameez is normally most embellished in a salwar kameez suit. The style is entirely dependent upon the tailors the designs that can be achieved are quite remarkable. The kameez comes in a variety of fabrics and sizes, with long or short sleeves, a wide variety of buttoned, collar, beaded, round and square necklines and with lace and piped finishes at them.

The kameez has evolved tremendously from the traditional style which usually consisted of a long dress with long sleeves. They now come in a variety of styles and designs, having been influenced by popular designers all over the world.

Kameez varies as

- 1 Short kameez length with short sleeves.
- 2 Short kameez with sleeveless.
- 3 Different neck styles.
- 4 Different back designs and back depth

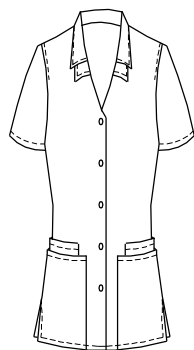
The salwar kameez is known all over the world. Basically traditional kameez salwar, curdier salwar kameez, princess salwar kameez, parallel salwar kameez are popular Indian salwar kameez. (Fig 3)

Materials like poplin, cotton, synthetic, satin, linen, silk, etc can be used for kameez. Trimming like hooks & eyes, zip, press buttons, fashion buttons, lace, fashion loops can be used. An open can be given in front or back. Slits are given both the sides. (Fig 4)

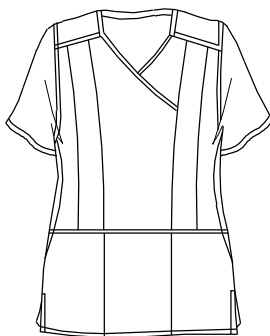


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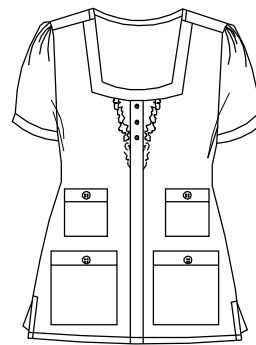
Fig 1



DOUBLE COLLAR BUTTON TOP (A)



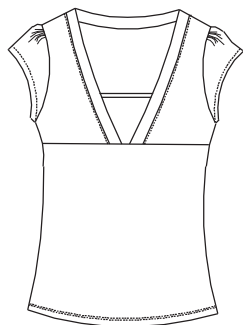
Y NECK TOP (B)



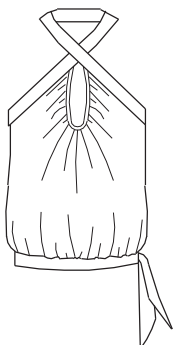
PRETTY RUFFLE SQUAR NECK TOP (C)

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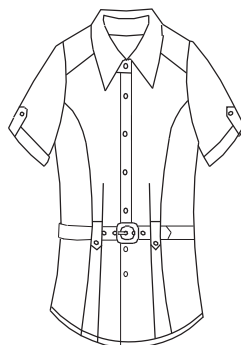
Fig 2



VECTOR LADIES TOP (A)



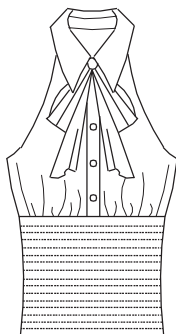
TOP WITH DECORATIVE PIPING (B)



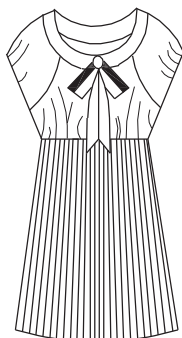
DIFFERENT BUTTON WITH BELT TOP (C)



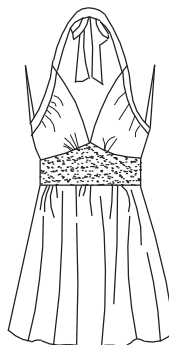
BLOUSE WITH BOW COLLAR (D)



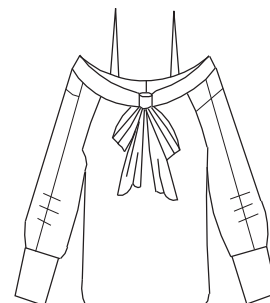
HALTER SMOCKED BLOUSE (E)



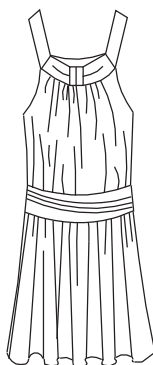
ACCORDION PLEATED TOP (F)



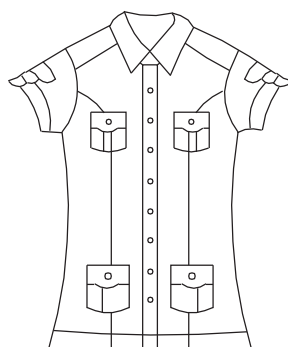
SWEET HEART HALTER TOP (G)



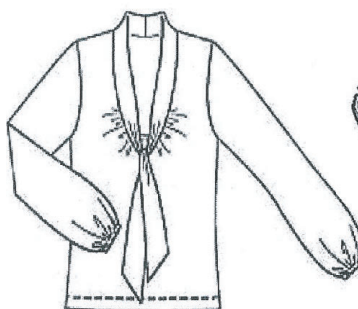
TOP WITH DECORATIVE PIPING (H)



DIFFERENT BUTTON WITH BELT TOP (I)



DOUBLE BREASTED TRENCH COAT (J)



FANCY FLOATY (K)



BLOUSE WITH BENGALIN VEST TPO (L)

DRN2135N2

Darts are one of the most basic structural elements in dress making. Darts are necessary because the body is not straight and flat but curved. A dart is used to shape a garment around the contours of the body and to allow freedom of movement, comfort to the wearer and also to make the garment look attractive. Darts are used mainly on women's dresses to allow fullness at the bust, hips, shoulders and elbows.

Draw a paper pattern of ladies' tops

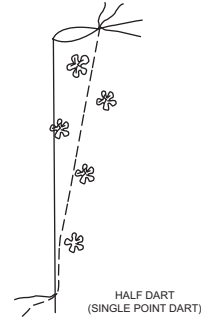
- 1 Lay the brown sheet on the drafting table
- 2 Draw the drafting of Ladies' Tops Front and Back and sleeve part on the brown sheet. (Fig 6)
- 3 Draw sleeve on the folded brown sheet.

Fig 3



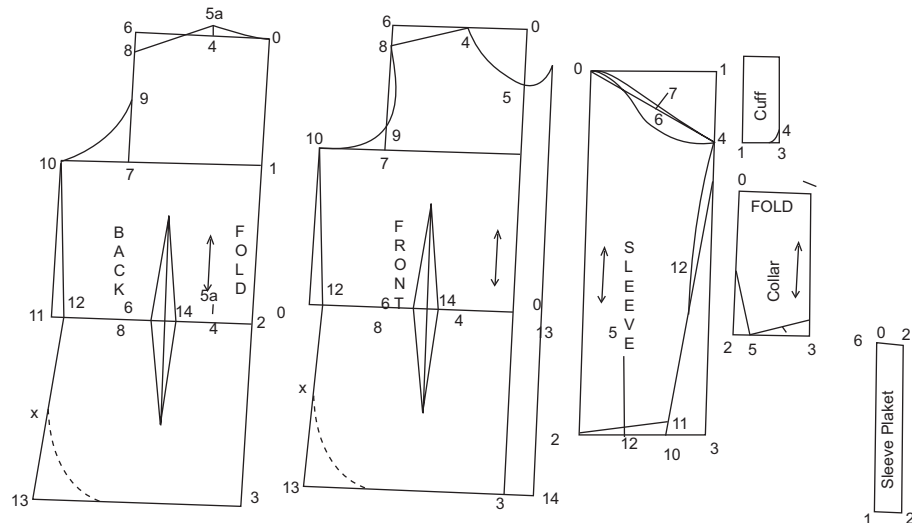
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Fig 4



DRN2135N4

Fig 5



0-1 = $B/8 + 6.5 \text{ cm}$
 0-2 = $WL + 2 \text{ cm}$
 0-3 = $FL + 2 \text{ cm}$
 and 3
 0-4 = $B/12 + 1 \text{ cm}$
 0-6 = $\frac{1}{2}$ Shoulder
 6-8 = 2.5cm
 7-9 = 2.5cm
 1-10 = $B/4 + 4 \text{ cm}$
 12-11 = 2cm
 13-3 = $B/4 + 5 \text{ cm}$
 2-14 = $B/8$
 5-13 = $3-14 = B/12 + 1.25 \text{ cm}$
BACK
 0-1 = $B/8 + 6.5 \text{ cm}$
 0-2 = waist length
 3-0 = Full length
 0-4 = $B/12 + 1 \text{ cm}$
 4-5 = 2cm
SLEEVE
 0-1 = $B/8 + 6.5 \text{ cm}$
 0-2 = Sleeve length + 1.5cm
 1-3 = 0-2
 1-4 = $B/8 - 1.5 \text{ cm}$
 0-5 = 2.5cm
 3-10 = 5cm
 11-10 = 1.5cm
 11-12 = $\frac{1}{2}$ of 2-11
 12-13 = $B/8$
OPEN COLLAR
 0-1 = 9cm
 0-2 = $\frac{1}{2}$ of the neckline (Front and back)
 3-1 = 2 to 0
 4 is midway of 0 to 2
 5-2 = 2cm
 3-6 = 2cm

Square out from vertically
 Horizontally from 0

Square out from 0, 1, 2

Shape 4 - 5 Front neck shape
 Square down from 6 - 7
 Join 4 - 8 shoulder slope

Shape 8,9,10 arm hole shape

Square down from 10 to
 Shape side 10, 12, 13
 Take 1.5cm dart at 14. Length is $B/6$ on both sides

Square lines from 12 and 3
 Expect 9 keep the proportions of points 6 to 14 the same as in the front draft.

Join 2 - 3
 Join 4 - 5
 Shape 4 - 7 - 5 - 0 and 4 - 8 - 9
 as shown
 Join 4 - 10
 Shape 11 - 2 and 4 - 12 - 11 as

Square out from vertical and horizontally from 0
 Join 3 - 2
 Shape 4 - 5
 Join 5 - 6

DRN2135N5

Paper cutting

1 Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instruction for preparing master pattern with paper cutting scissors.

Back part: 0 - 2a - 8 - 9 - 10 - 12 - x - 3

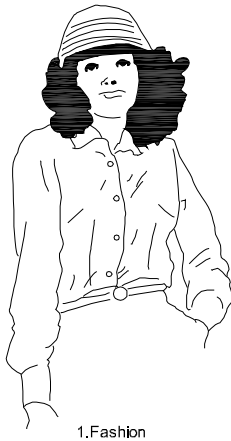
Front part: 13 - 5 - 4 - 8 - 9 - 10 - 12 - x - 3 - 14 - 2 - 1

Sleeve 0 - 5 - 7 - 12 - 11 - 2

part: 0 - 5 - 6 - 12 - 11 - 2

Collar: 0 - 5 - 6 - 1

Fig 6



DRN2135N6

Style Features	Material & Trimmings
Front full open Full sleeve open collar	Cut components of Tops Front 2 back 1 Sleeve 2 Collar 2

Cuff 0 – 1 = 4cm 0 – 2 = 1/8 chest 3 – 4 = 0.5cm Sleeve placket: 0 – 1 = 1/4 chest 0 – 2 = 3cm	Square out horizontally and vertically from 0 Square out from 1 Square out from 2 and mark 3 Join 2 - 4 Square and horizontally and vertically from 0 Square out from 1 Square out from 2 and mark 3
--	---

Draw a master pattern

- 1 Add the following allowances to the cut paper pattern components for seam allowance and burnings.
- 2 Cut the excess brown sheet to get the master of Tops.

- 3 Mark and cut notches at front and back darts.
- 4 Name the cut pattern components for future reference.

Instruction for master pattern**Body part:**

Bottom - 3cm
 Shoulder - 0.75cm
 Neck - 0.5 cm
 Side seam - 2.5cm

Sleeve:

Side seam - 2.5cm
 Bottom - 4cm
 Sleeve shape - 0.5cm

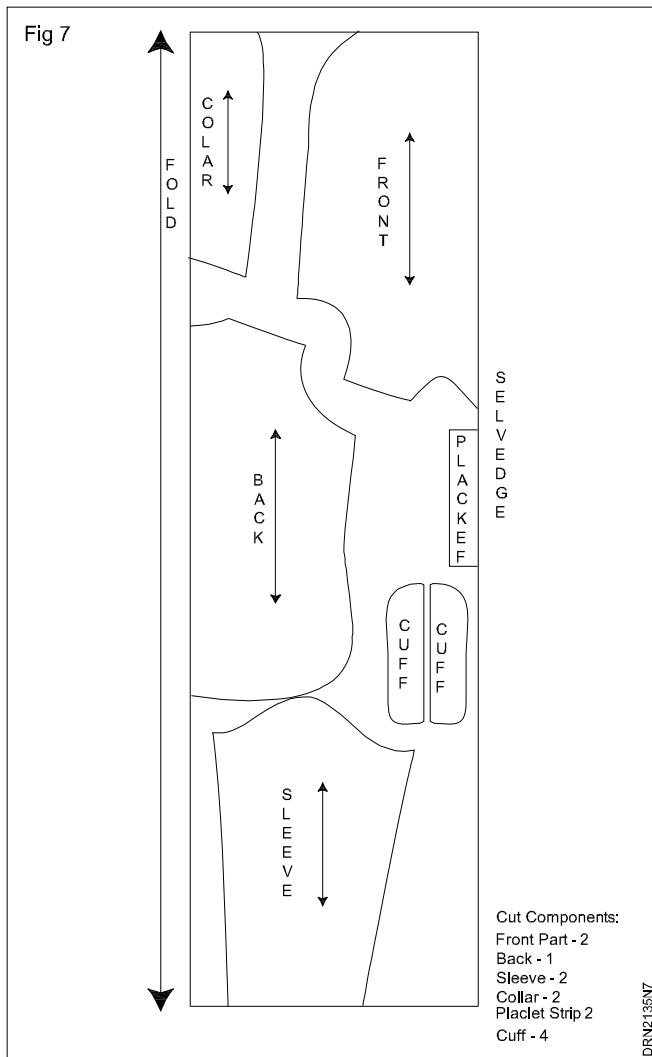
Collar:

Top and Bottom - 1cm
 Side seam - 1cm

Lay and cut top on fabric (Fig 7)

- 1 Lay the fabric on the cutting table on width wise folding with wrong side facing.
- 2 Arrange the master pattern of ladies' tops economically without wasting the fabric.
- 3 Mark the outline of all Tops components as laid with marking Chalk.

- 4 Mark the dart points using tracing wheel.
- 5 Remove the master pattern.
- 6 Cut along the marking line with sharp shears.
- 7 Pin all the layers of components together for stitching.

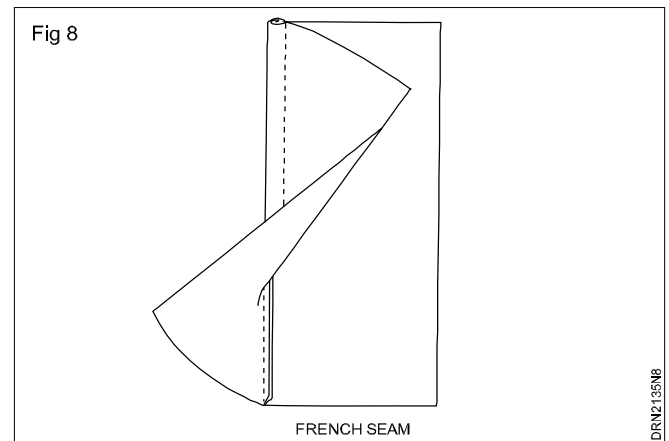


Sew a ladies' top

- 1 Stitch and finish the darts in front and back on the wrong side.
- 2 Prepare the open collar.
- 3 Join the shoulder lines of front and back part with plain seam.
- 4 Attach the collar to the neck line (with facing).
- 5 Prepare the sleeve with cuff
- 6 Attach the sleeve to armhole with Shirt - Sleeve method
- 7 Join front and back sides from sleeve to bottom with French seam.

French seam (Seam finish for tops and shirts used in loose woven fabrics). The French seam is stitched twice first from the right side and then from the wrong side. Take two sides of fabric with wrong side together. Stitch at a distance of 3mm from the edge on the right side. Trim the seam allowance.

Press the seam allowances both to one side. Fold right sides together, with stitched line exactly on the edge fold and press again stitch a seam line 0.6cm away from the edge. (Fig 8)



- 1 Turn hem of body part and finish.
- 2 Cut and stitch to button holes on right front. First buttonhole shall be at a distance of $B/12 + 1.5$ cm from the top edge of centre front line. Cut the other buttonholes at a distance of equal intervals.

Buttonholes to be marked at a distance of 1.5cm away from the front edge.

- 3 Fix 6 buttons on the left front part according to the measurement of buttonholes
- 4 Finish and press the garment.



Scan the QR code to view the video for this exercise



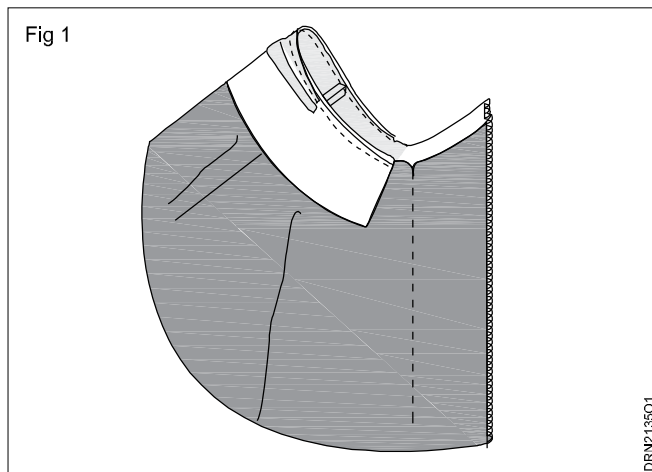
Scan the QR code to view the video for this exercise

Attaching rolled collar

Objective: This shall help you to

- **attach a rolled (open) collar to the neck line.**

- 1 Over lock the long edges of facing. Place the underside of collar right side of body part together, leaving 1.25 cm from the front edge.
- 2 Tack collar ends on the step marks. Baste collar with neckline up to the shoulder seam.
- 3 Clip the shoulder seams before the top layer of collar seam allowance.
- 4 Lift the top layer of collar and baste lower layers along the back neck from one shoulder seam to the other. (Fig 1)

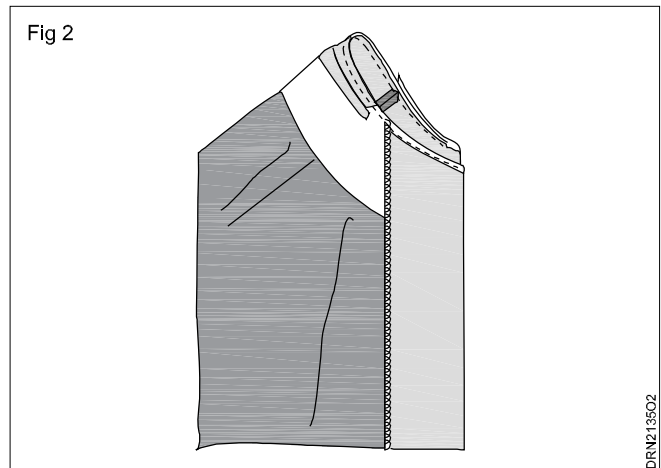


- 5 Turn the facing from both sides on the centre front line over the collar and stitch from one end to the other end of neck line. (Fig 2)

Leave upper layer of collar lifted. Stitch only on the lower layers (as basted).

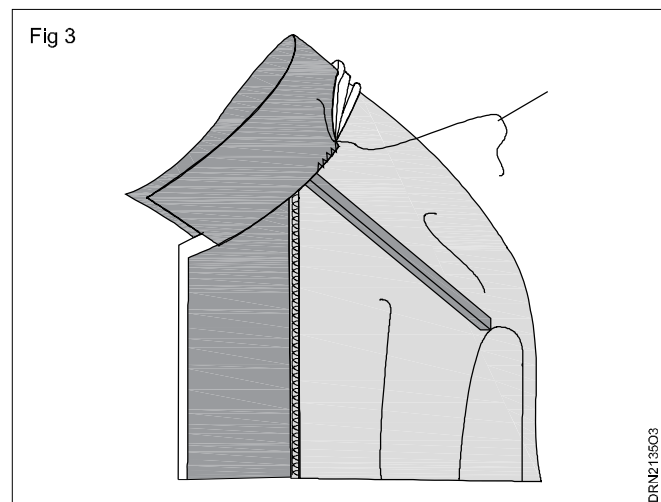
- 6 Turn the facing to the inner side of the garment. Pull out the corners of step ends properly.

Fig 2



- 7 For finishing back neck, press seam allowance of back neck inside the collar. Turn the raw edge of the seam allowance of upper layer of collar inside and stitch along the previous seam. (Fig 3)

Fig 3

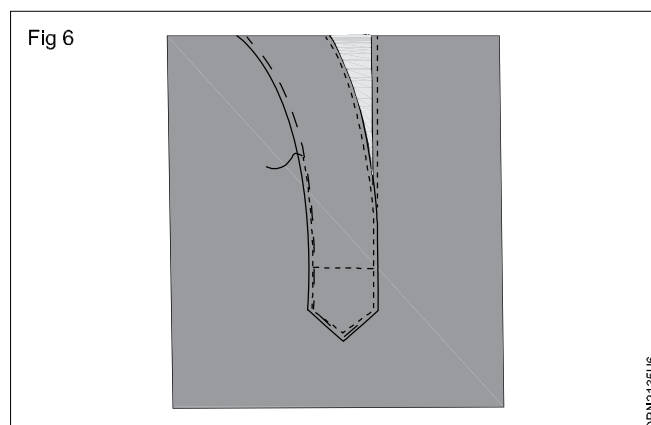
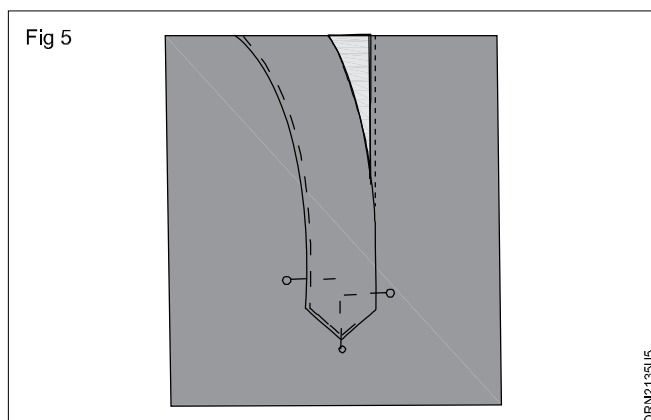
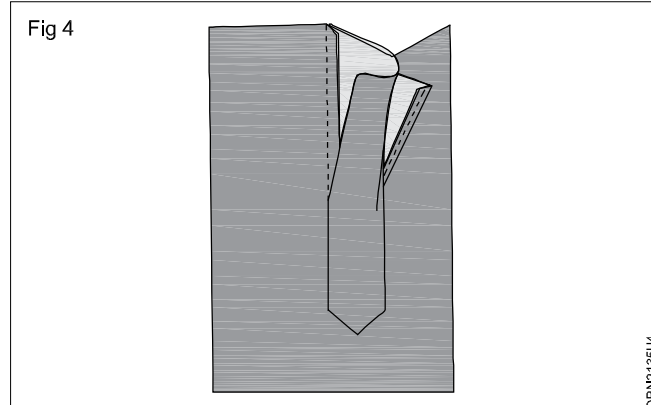
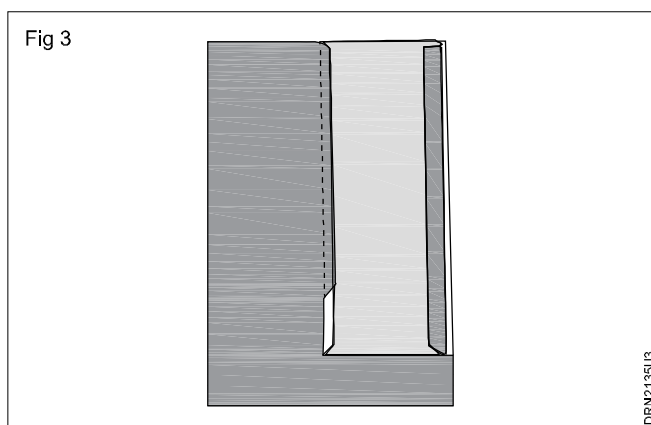
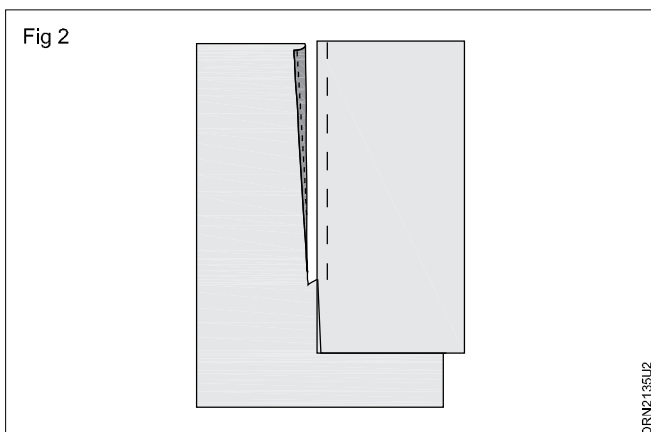
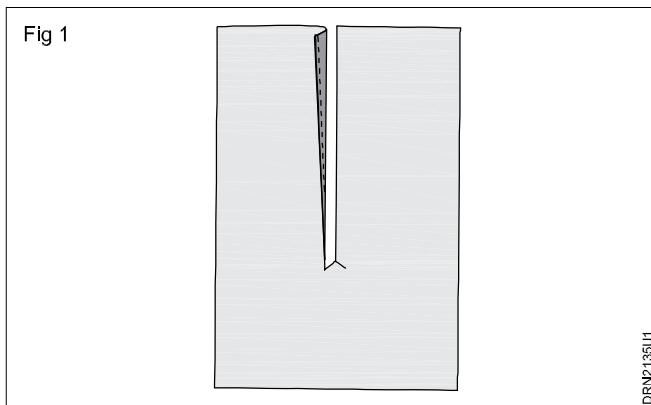


One piece placket

Objective: This shall help you to

- **construct a one-piece placket (sleeve).**

- 1 Take one piece of fabric 13 x 6 cm (facing) and sleeve. Mark 10cm long line on center of sleeve (placket opening) and slash. Clip 0.75 cm diagonally at the end.
- 2 On the top edge turn 0.5 cm twice on the wrong side. Taper towards the clip side and machine stitch. (Fig 1)
- 3 Baste facing along the unfinished edge of the placket opening, right side of facing with wrong side of the sample piece (0.5 cm seam allowance) (Fig 2)
- 4 Bring facing out on the right side of the sample piece and turn the raw edge of facing by 1 cm. (Fig 3)
- 5 From lower end of facing close to the stitching line cut off 3 cm in width and 1 cm in length to reduce bulk.
- 6 Roll over the facing on its previous seam, make a fold on the centre line and press. (Fig 4)
- 7 Turn the corners and form a peak at the centre of the placket end and press. Finish the placket end as in two-piece placket. (Fig 5 & 6)

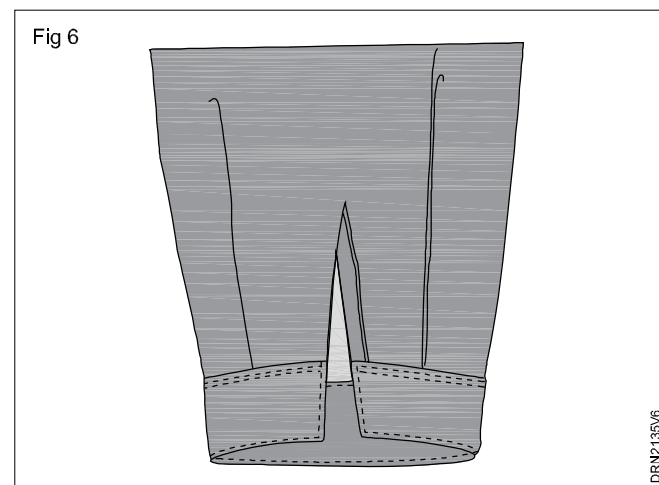
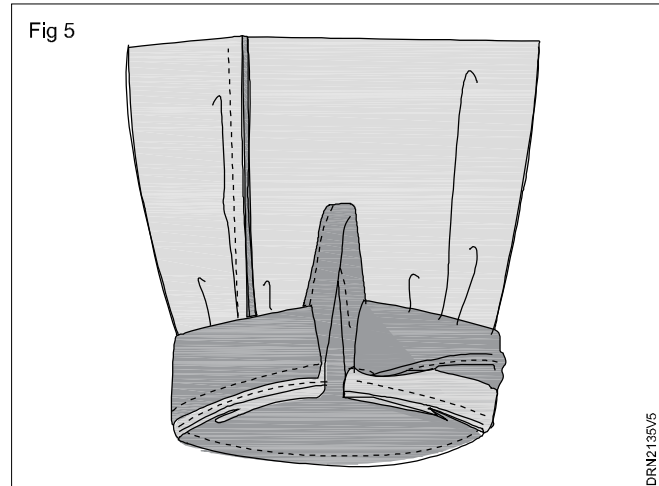
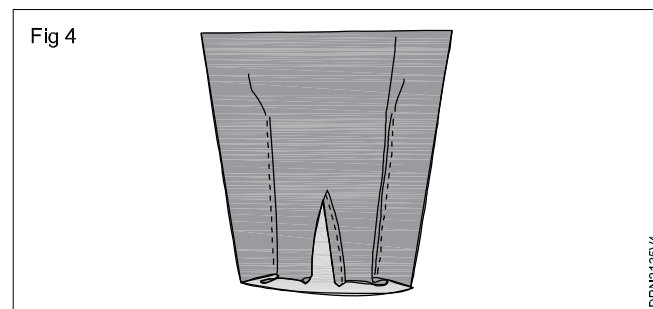
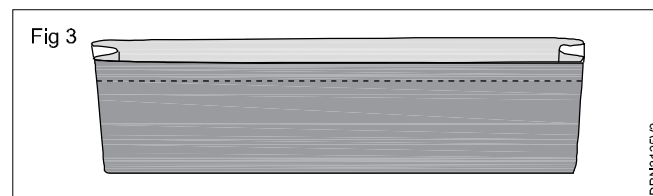
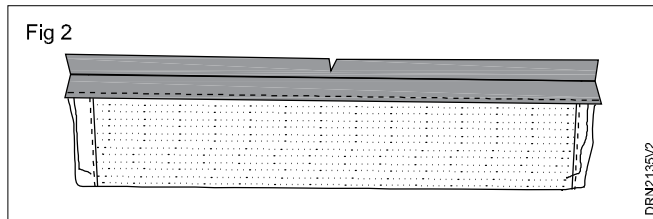
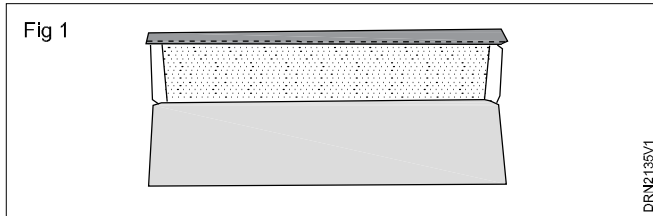


Attach cuff with sleeve

objective: This shall help you to

- **prepare and fix cuff to sleeve bottom.**

- 1 Place cuff pattern over fusing and cut tow pieces. Leaving seam allowance on three sides place fusing piece on wrong side of the material.
- 2 Turn the longer edge of seam allowance inside. Baste and stitch 0.75 cm away from edge on right side. (Fig 1)
- 3 Fold cuff on centre line, right sides together. Baste and stitch from fold side leaving 2 mm unstitched at the folded edge and lock the stitch. (Fig 2)
- 4 Turn the cuff inside out (take care of corner). Cut notch at centre of raw edge. Press (Fig 3)
- 5 Press the placket inside and measure the sleeve bottom. The difference between cuff length and sleeve bottom is the measurement for two pleats. Prepare 1st side pleat at side seam. Prepare another side pleat at the same distance on the other side placket. (Fig 4)
- 6 Baste and stitch underside of cuff (infused) to wrong side of sleeve bottom matching centre marks (Fig 5)
- 7 Turn the cuff unit up and press seam allowance inside the cuff. Then press the cuff from folded edge.
- 8 Baste the sleeve bottom along with cuff edge through all layers. Stitch 2mm away from edge along sleeve bottom and cuff. Lock the stitch and press. (Fig. 6)



Attach armhole with sleeve

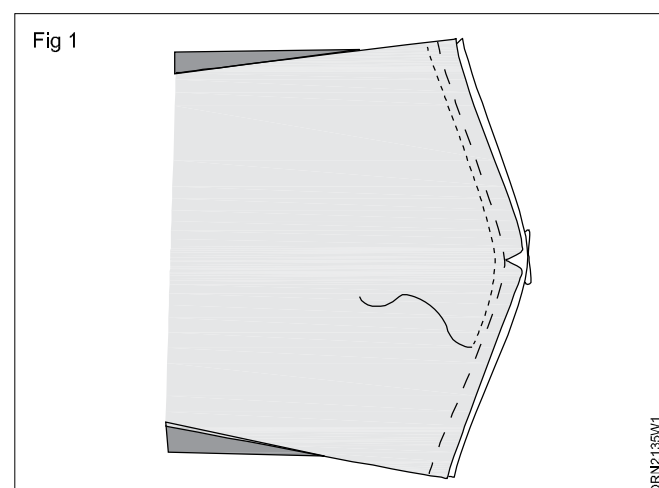
Objective: This shall help you to

- **sleeve to armhole with shirt-sleeve method.**

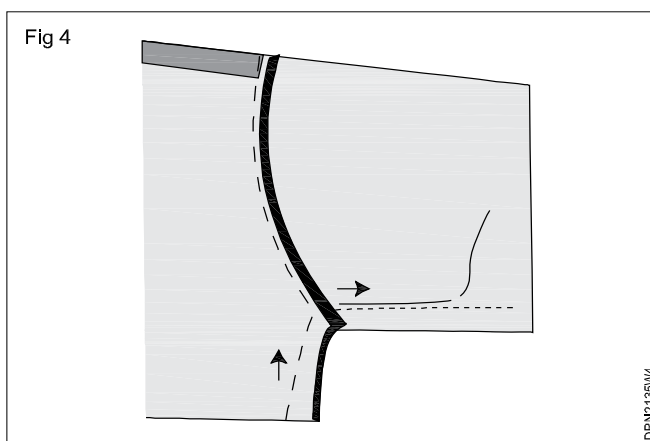
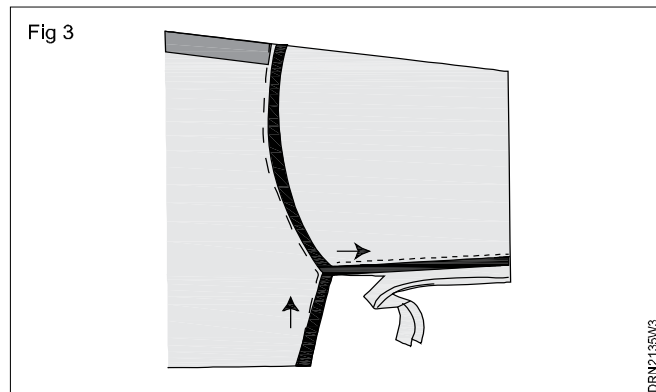
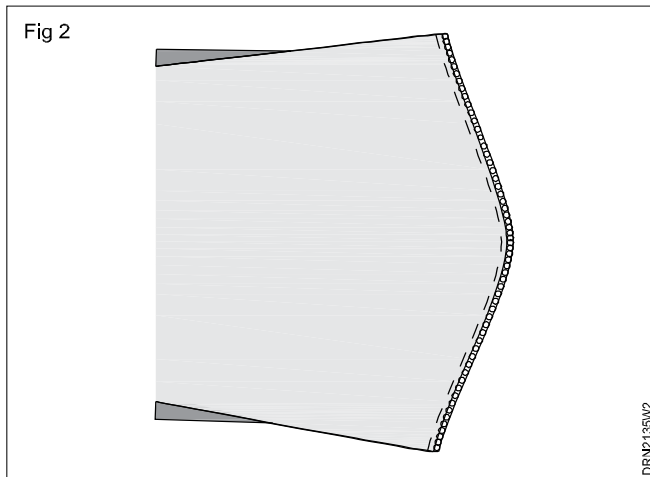
- 1 In this method the side seams of bodice and sleeve are still unstitched so that two flat pieces are joined. Unfold bodice on shoulder seam line and place it flat. With right sides together, match the centre of sleeve and shoulder seam and pin sleeve to armhole.

Take care to select the appropriate sleeve so that shape of the sleeve crown and armhole are matching.

- 2 Control ease in sleeve with 30 pins. Baste and stitch. (Fig 1)
- 3 Finish seam allowance with overlock. (Fig 2)
- 4 With right sides together, match and pin underarm seams. First baste then stitch in one continuous seam from bottom of the garment to bottom of the sleeve. (Fig 3)
- 5 Hem the seam allowance (specially to reduce bulk at cross point). Finish the seam allowance with overlock. (Fig 4)



Take care for proper cross seam finishing.

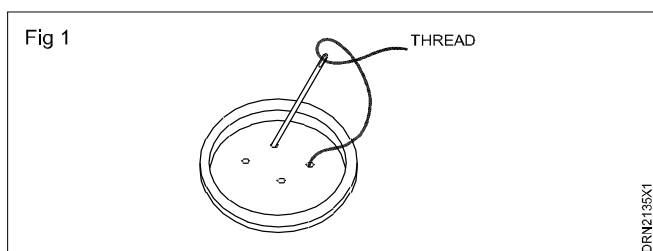


Sew-through buttons

Objective: This shall help you to

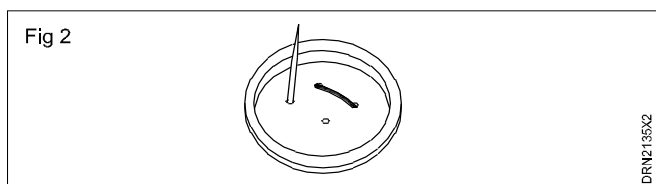
- **attach sew-through buttons by hand.**

- 1 Take tops front right side. Mark button position at regular intervals.
- 2 Insert two strans of thread into the needle.
- 3 Hold the fabric by left hand and insert the needle from right side of the fabric at mark, right angled to the fabric. Pull the needle with thread leaving 1 cm thread at the right side.
- 4 To secure thread make stab stitch: hold the thread end with left hand thumb and insert the needle into the fabric very near (ie. 1 mm) to the 1st insertion from wrong side.
- 5 Repeat the last two steps. Cut loose thread end from the upper side. Centre the button upon the mark directly on the stab stitch.
- 6 Bring needle through the button from one hole and back into the fabric by other hole and pull the thread. (Fig 1)

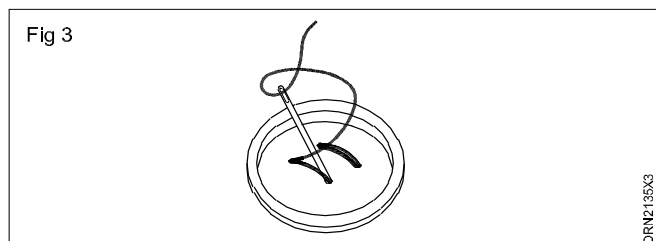


- 7 Repeat the process twice.

- 8 Bring the needle from the underside of the fabric through the remaining holes of the button. (Fig 2)



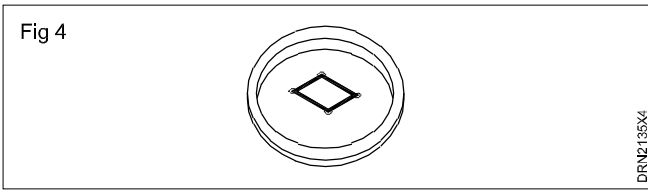
- 9 Then bring back into the fabric through the other hole left. (Fig 3)



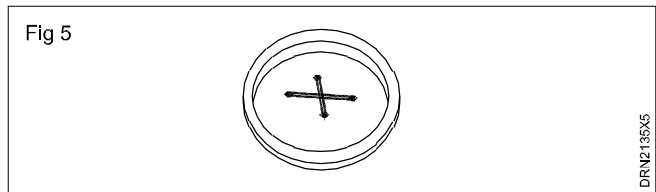
- 10 Repeat the step four more times.
- 11 To secure the thread, insert the needle into the thread of the last stitch below the fabric, leave a loop, pass the needle through the loop and pull the thread. Repeat the process one more time.

12 Fix another button on a mark on the cloth in the same way.

13 Attach 2 buttons in square shape. (Fig 4)



14 Attach 1 button crosswise. (Fig 5)



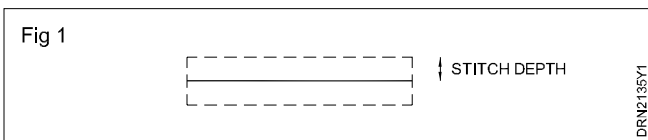
One-bar-one-fan button hole

Objective: This shall help you to

- prepare one-bar-one-fan button hole by hand.

- 1 Take top left side. Mark button hole position according to the button position. Give a slash on the button hole mark. Place a row of machine stitches around a row of machine stitches around to slash line. (2mm away from slash line) (Fig 1)

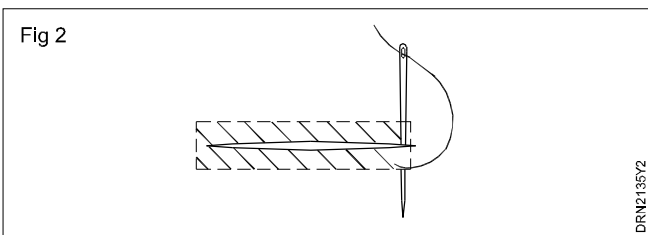
Machine stitches must be approx. 6 stitches per 1 cm.



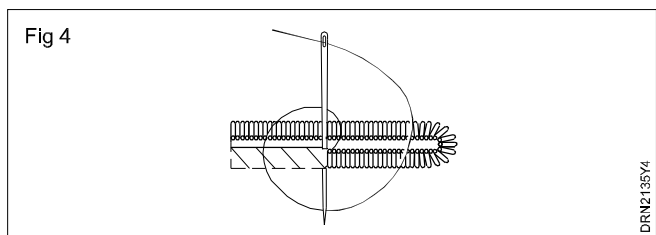
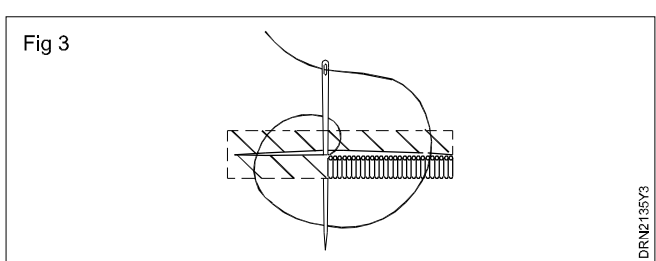
- 2 Set the buttonhole scissor according to the buttonhole, and then cut along the slash line with buttonhole scissors using one thread of fabric as a guide.

Scissors must be sharp and pointed.

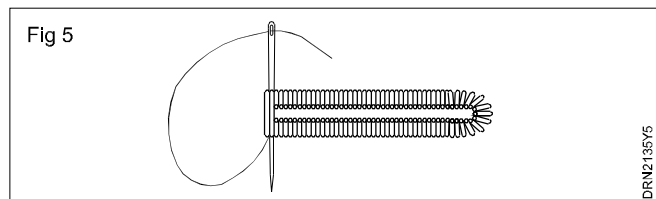
- 3 Overcast the raw edges of the slit by hand with single thread, keeping 3 stitches per cm and length of 2 mm. (Fig 2)



- 4 Hold the fabric by left hand and start filling the overcast edge from one end by buttonhole stitches covering the machine stitched line. Take the stitches close side by side at a regular distance maintaining even tension in each stitch. (Take suitable thick thread or twisted double thread.) (Fig 3)
- 5 At the outer end spread, 5 to 7 stitches in fan shape. (Fig 4)

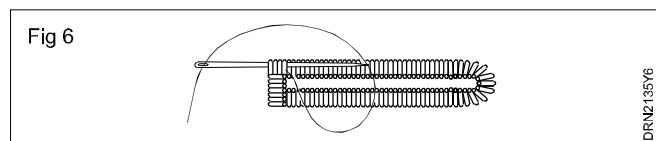


- 6 Fill the remaining cut by buttonhole stitches. On the end make two stitches taking full width of both worked out edges for bar tacking. (Fig 5)



- 7 Fill bar tack stitches by buttonhole stitches. (Fig 6)

While filling bar tacks with buttonhole stitches, the needle should catch one thread of the previous buttonhole stitches of either side.



Sketch a ladies' suit

Objectives: This shall help you to

- sketch different types of ladies' suit
- design a suit for ladies.

Sketch different types of ladies' suit

- 1 Sketch the different types of ladies' suit in the following figures. (Fig 1 to Fig 4)

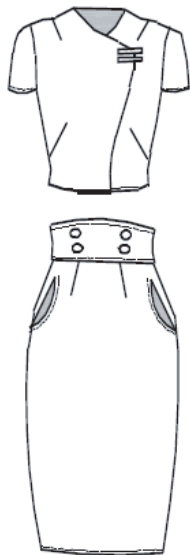
Using 2H pencil in the cartridge paper.

- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

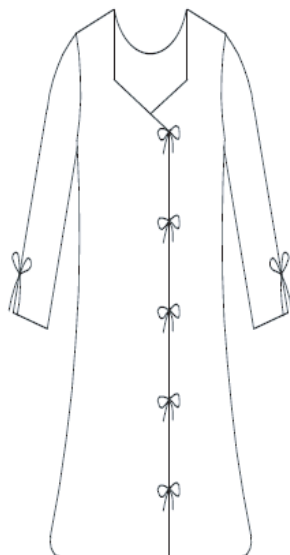
Design a suit for ladies

- 1 Design a suit according to the theme "Ladies".
- 2 Decide the fabrics suitable for the designed suit.
- 3 Sketch the designed suit with its detailed style features.
- 4 Apply suitable colours to the garment with proper effects.

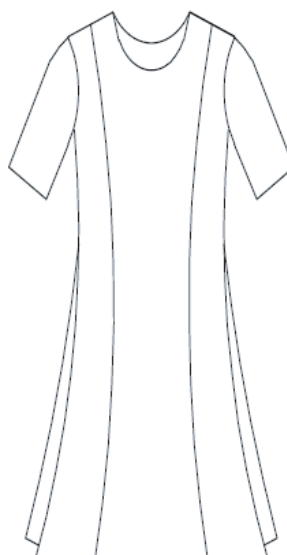
Fig 1



OVERLAP TOP WITH STRAIGHT SKIRT (A)



OVERLAP KAMEEZ (B)



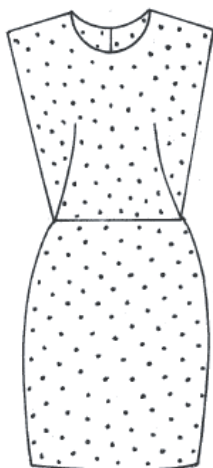
PRINCESS LINE KAMEEZ (C)



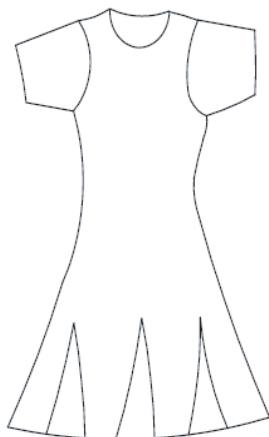
UMBRELLA KAMEEZ (D)

DRN2135Z1

Fig 2



FRENCH DART KAMEEZ (A)



GORDER KAMEEZ (B)



CONTOUR DART KAMEEZ (C)



SURWAR (D)



SURWAR (E)



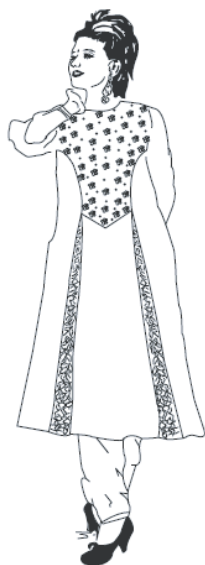
SALWAR WITH WAIST BAND (F)



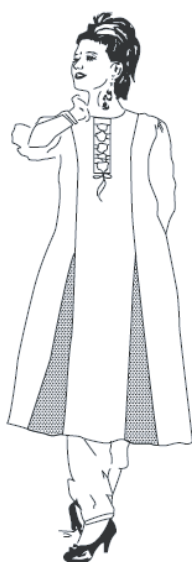
CONTOUR DART KAMEEZ (G)



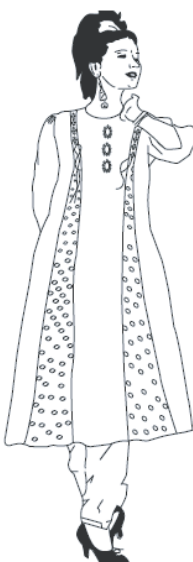
DHOTI SALWAR (H)



(I)



(J)



(K)

DIFFERENT TYPES OF PRINCESS
LINE KAMEEZ



BELL BOTTOM SALWAR (L)

DRN213572

Fig 3



UMBRELLA KAMEEZ (A)



(B)

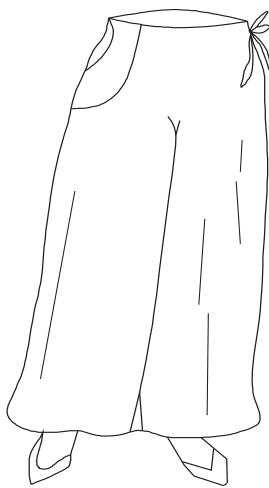


OVERLAP KAMEEZ

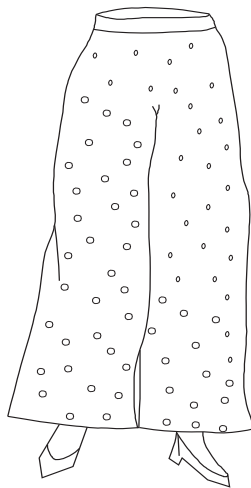
(C)



KALI KAMEEZ OR KURTHA (D)

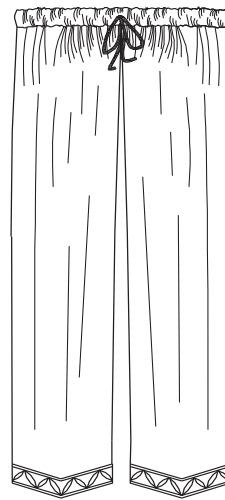


(E)



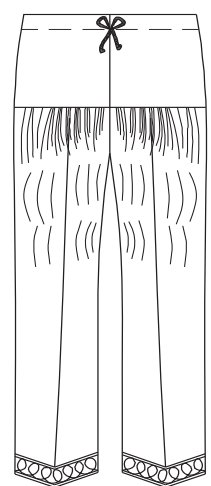
(F)

BELL BOTTOM SALWAR



(G)

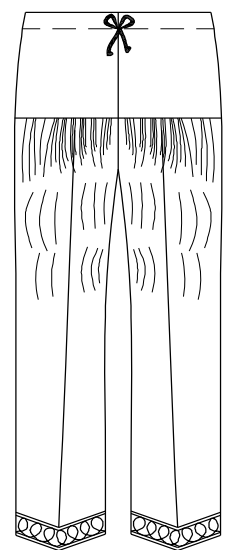
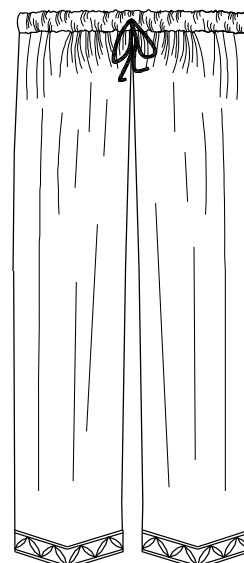
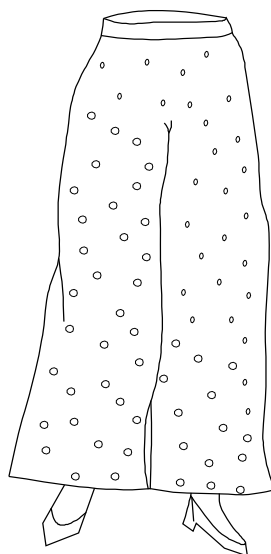
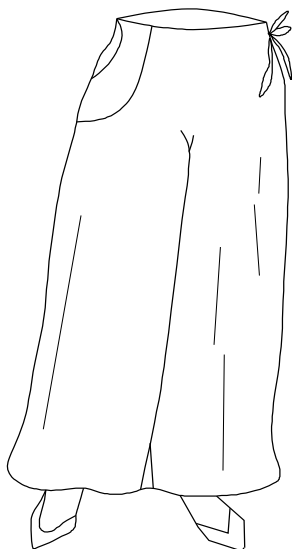
SALWAR (G)



(H)

DRN2135Z3

Fig 4



DRN2135Z4

Kurthies (Teenager) style - II

Objectives: This shall help you to

- lay and cut a ladies' kurta
- construct a ladies' kurta.

Draft a paper pattern of ladies' kurta

- 1 Lay the brown sheet on the drafting table with its wrong side facing upwards

- 2 Draft the pattern of kurtha on a folded brown sheet

- 3 Draw the drafting of kurtha front and back body part and sleeve part on brown sheet. (Fig 1)

Fig 1



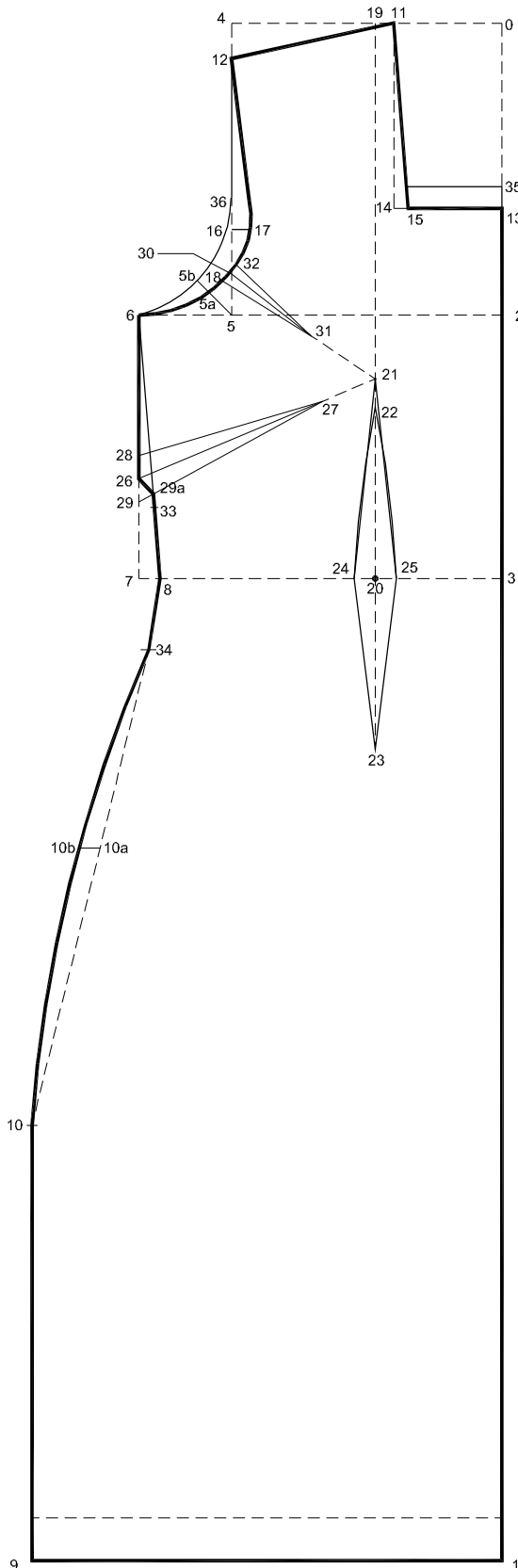
Measurements

Full length	= 105cm
Natural waist	= 39cm
Bust level	= 25.5cm
Shoulder	= 38cm
Bust	= 92cm
Waist	= 72cm
Hip	= 100cm
Sleeve length	= 25cm

Style Features	Material & Trimmings
Darts at wasit Faced neck Side slit	Cut components of Kameez Front 1 Back 1 Sleeve 2 Facing piece 2 Matching color thread Needle no. 16 Hand needle

Fig 2

INSTRUCTIONS FOR DRAFTING



FRONT & BACK

Front

0-1 = FL + 3 cm (for dart)

0-2 = B/4 - 2.5 cm

0-3 = NW

0-4 = Sh/2

2-6 = B/4 + 2.5 cm

7-8 = 1.5 cm

1-9 = B/4 + 10 cm

9-10 = B/3

10-10a = 1/2 of 8-10

10a-10b = 1 cm

0-11 = B/12

4-12 = B/36

0-13 = B/8 + 1.5 cm

14-15 = 1 cm

5-16 = 1/3 of 12-5

16-17 = 1.25 cm

5-5a = 1/3 of 6-5

5-18 = 2 cm

0-19 = 3-20 = B/12
+ 1.25 cm

19-21 = BL

21-22 = 2 cm

20-23 = 20-22

20-24 = 20-25 = 1.5 cm

6-26 = B/8

21-27 = 4 cm

26-28 = 26-29 = 1.5 cm

18-30 = 0.75 cm

30-31 = B/12 - 1 cm

30-32 = 0.75 cm

8-33 = 8-34 = B/12

Square out horizontally and vertically from 0

Square out from 2, 3 and 1

Square down from 4 & mark 5

Square down from 6, mark 7

Join 6-8

Square up from 9

Join 10-8

Shape 8-10b-10

Join 11-12 and square out from 13

Square down from 11 and mark 14

Join 11-15

Square out from 16

Join 12-17

Divide angle 16-5-8

Shape 12-17-5a-6

Join 19-20

Square up and down from 20

Shape slightly 22-24 and 22-25

Join 24-23 and 25-23

Join 26-21

Join 26-27

Join 28-27, 27-29 and mark 29a, join 26-29a

Join 30-21

Join 31-32 and 31-18 and extend up to shape of armhole Mark for placket opening

Note: Addition of 3 cm in full length is given for side dart. It is not required for back length. Take only full length for back.

Back

0-35 = B/8

12-36 = 1/2 of 12-5

5-5b = 1/2 of 5-6

Outlines are same as front

Square out from 35 upto previous neck line

Divide angle 36-5-6

Shape 12-36-5b-6 (back arm hole)

For centre dart at back:

Join 21-20

Join 21-24, 21-25, 25-23, 24-23 (back dart)

Note: Scye dart and side dart are not required.

Fig 3

Sleeve

0-1 = SL

0-2 = $B/4 - 2.5$ cm2-4 = $B/12 + 2.5$ cm1-5 = $SB/2$ 4-6 = $1/2$ of 4-5

6-7 = 0.5 cm

0-8 = $B/24$

11-12 = 0.3 cm

10-13 = 0.7 cm

9-14 = 0.8 cm

4-15 = $B/24$

15-16 = 1 cm

8-17 = 1 cm

18-20 = 0.5 cm

19-21 = 0.5 cm

Square out horizontally and vertically from 0

Square out from 1

Square down from 2 and mark 3

Join 4-5

Square up to 6

Shape 4-7-5

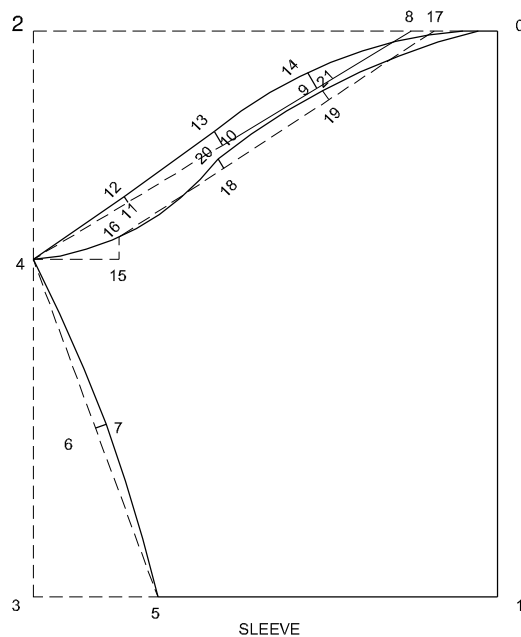
Join 4-8 divide into 4 equal parts mark 9,10,11 and square up

Shape 0-14-13-12-4 (back shape)

Join 16-17

Divide into three equal parts mark point 18,19, square up

Shape 0-21-20-16-4



DRN2135ZA3

Pattern cutting

- 1 Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instructions for preparing master pattern.

Front body part = 13-15-11-12-17-6-8-34-10b-10-9-1

Back body part = 35-11-12-36-6-8-34-10b-10-9-1

Back sleeve shape = 0 - 14 - 13 - 12 - 4 - 7 - 5 - 1

Front sleeve shape = 0 - 21 - 20 - 16 - 4 - 7 - 5 - 1

Master pattern

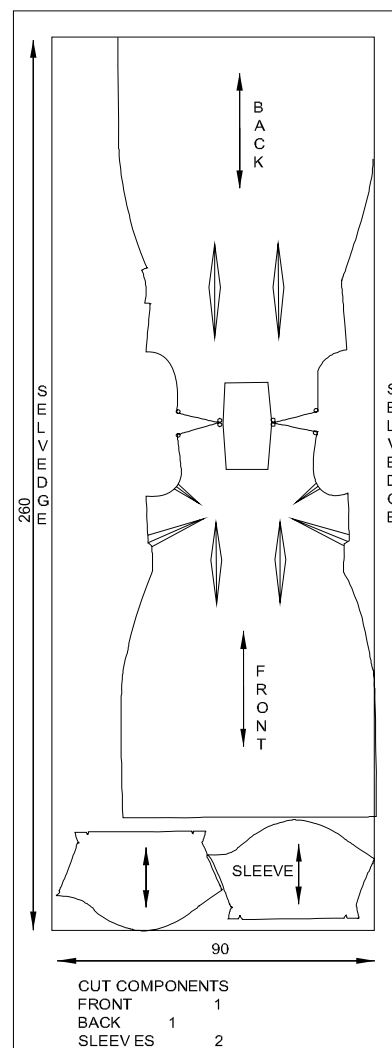
- 1 Add the following allowances to cut paper pattern components for seam allowances and turnings.

Instructions for master pattern**Front and back sleeve**

Neck, Shoulder and armhole	0.75cm	Top	0.75cm
Sides	2.5 cm	Side	2.5cm
Bottom turning	6cm	turning	3cm

- 2 Cut the excess brown sheet to get the master pattern of kurtha with dart.
- 3 Mark and cut notches at darts and turnings.
- 4 Name the cut pattern components for future reference.

Fig 4



CUT COMPONENTS
 FRONT 1
 BACK 1
 SLEEVES 2

DRN2135ZA4

Lay and cut a ladies' kurta

- 1 Lay the fabric on the cutting table with their wrong side facing upwards.
- 2 Arrange the master pattern of kurtha with dart economically without wasting the fabric.
- 3 Mark the outline of all the kurtha components as lay using a marking chalk.
- 4 Mark the darts position front body part and slit open position on the fabric.
- 5 Remove the master pattern. Transfer the markings of darts position to the lower layer of the fabric sing tracing wheel.

For short kurthies, the length should be reduced as per requirement. For latest trends, we have to add sufficient loose in the bust and waist area by removing the darts.

- 6 Cut notches at darts and slit markings.
- 7 Tie all the layers of components together.

Stitch ladies kurta

- 1 Baste and stitch darts and press scye and side darts towards waistline and waist darts towards centre back and centre front.

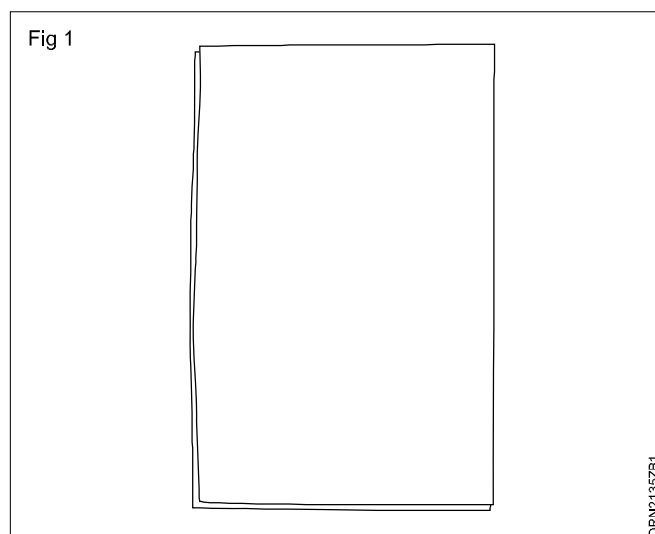
- 2 Finish the neck with facing. (S.S.No.1)
- 3 Stitch front and back side together leaving slit opening on both sides.
- 4 Fold and stitch the slit open from bottom to slit mark piece the needle on fabric and lift the pressure foot turn the fabric stitch on seam-allowances. Then turn and fold the other side of slit open and stitch it.
- 5 Trim the edges of side seam with pinking scissor or give over lock stitch.
- 6 Finish the slit and fold the bottom by double row of stitches for neat finish.
- 7 Fold the sleeve bottom and stitch it.
- 8 Stitch the side seam of sleeve and trim the edges with pinking scissors or give over lock stitch.
- 9 Set the sleeves in armhole by set - in - sleeve method.
- 10 Trim excess threads.
- 11 Finish and press.

Neckline facing

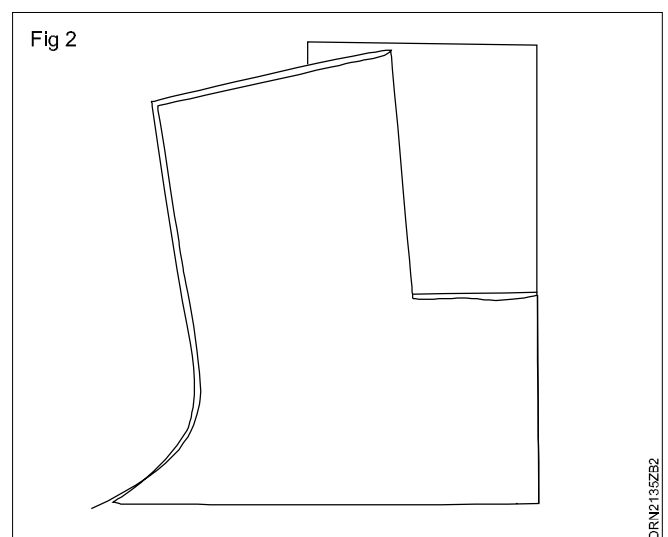
Objective: This shall help you

- cut the facing and to attach it to the square neck.

- 1 Take two pieces of cloth (16 x 22.cm) from the same fabric as the shirt material for facing. Use excess material from layout. Fold each facing piece in centre widthwise. Work with one piece first. (Fig 1)

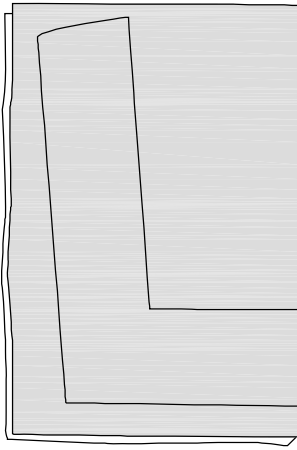


- 2 Set the folded front neck of shirt piece upon one folded facing piece together with folded edges of both pieces. Mark the neck shape and the slope of shoulder line on the facing. (Fig 2)



- 3 Copy the neck shape on facing at a distance of 4.5 cm. (Fig 3)
- 4 Cut on inner and outer shape and unfold the facing piece.
- 5 Repeat the whole process with back neck on other facing piece.

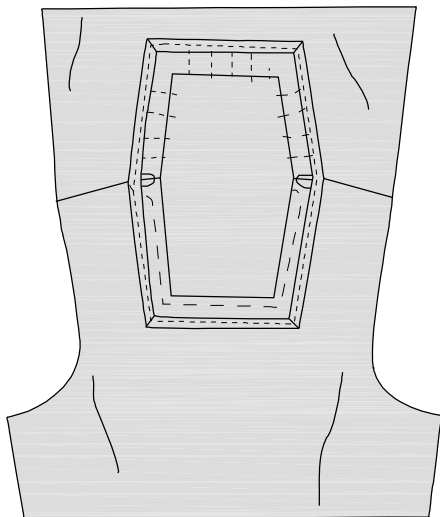
Fig 3



DRN2135ZB3

- 6 Stitch the shoulder seam of shirt and facing strip separately from the wrong side. Press open the shoulder seam of facing strip. Press the seam allowance of shirt towards back.
- 7 Turn the outer raw edges of facing strip by 1 cm towards wrong side and stitch at a distance of 0.5 cm.
- 8 Pin the facing strip congruently on the neck of shirt; join right side of shirt and facing strip. Take care that shoulder seams match. Baste it. (Fig 4)

Fig 4



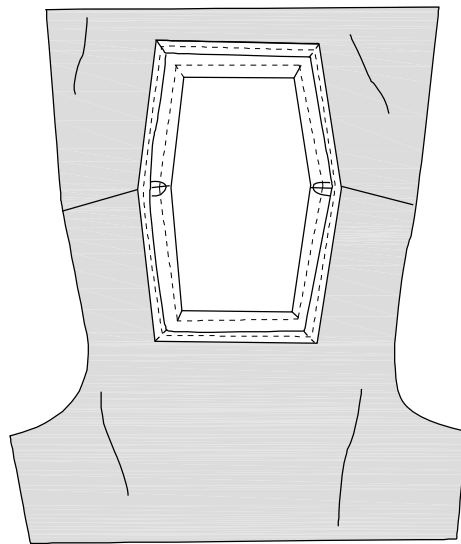
DRN2135ZB4

- 9 Stitch around the inner neckline at a distance of 0.75 cm.
- 10 Clip all the corners diagonally leaving 2 mm from seam edge. (Fig 5)
- 11 Fold the facing upwards inside the neck and top stitch all around very close to the edge of neck shape. (Fig 6)

Stitch only on facing and seam allowance, don't catch shirt material.

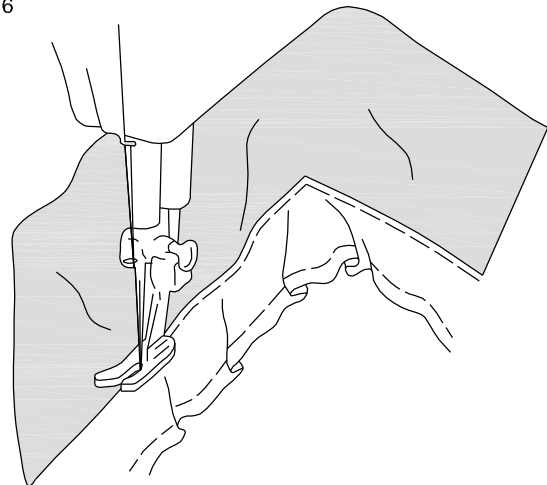
- 12 Fold the facing on the line on neck shape on the wrong side of shirt piece. Set the seam; press, baste and hem it. (Fig 7)

Fig 5



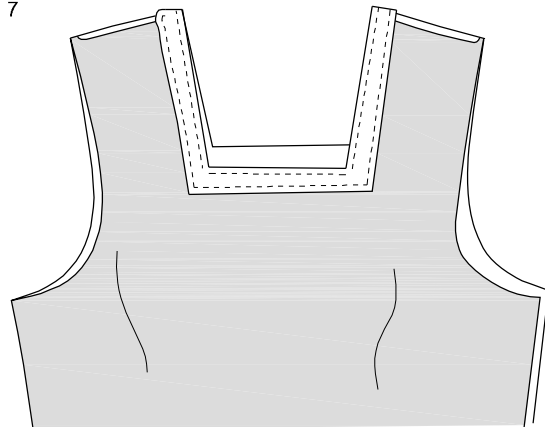
DRN2135ZB5

Fig 6



DRN2135ZB6

Fig 7



DRN2135ZB7



Scan the QR code to view the video for this exercise

Develop designs with geometrical shapes

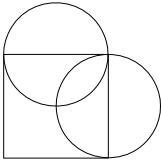
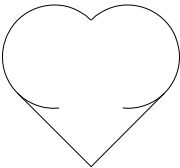
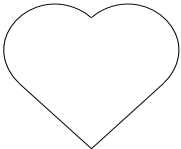
Objectives: At the end of this exercise you shall be able to

- develop designs with geometrical shapes - I
- develop designs with geometrical shapes - II
- develop designs with geometrical shapes - III
- develop designs with geometrical shapes - IV to VIII
- placement of single unit in 2 style.

Requirements			
Tools / Instruments		Materials	
• Plastic scale - 15 cm • Painting brush No - 1 & 3 • Drawing table • Pencil sharper • Palette	- 1 No. - 1 No. - 1 No. - 1 No. - 1 No.	• Catridge paper of A4 size • Compass • Pencils(HB,2B to 6B) • Pencil eraser • Poster colors - Yellow, Red & Blue • Cup of water • Waste cloth	- as reqd. - 1 No. - 1 No each. - 1 No. - 1 No. - 1 No. - 1 No.

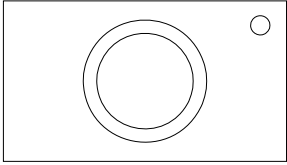
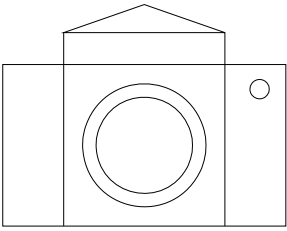
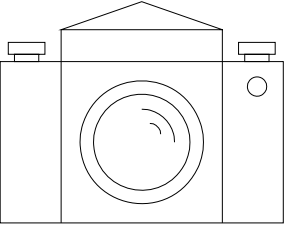
PROCEDURE

TASK 1: Develop designs with geometrical shapes - I

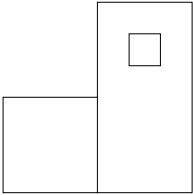
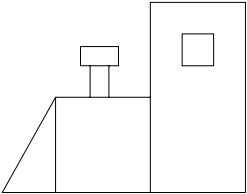
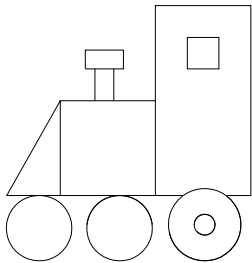
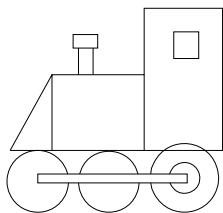
Fig 1 	
Fig 2 	
Fig 3 	
Fig 4 	

TASK 2: Develop designs with geometrical shapes - II

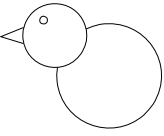
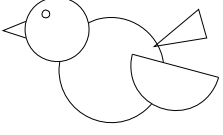
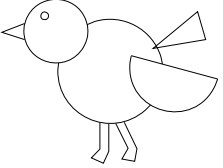
Fig 1 	
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Fig 2		
Fig 3		
Fig 4		

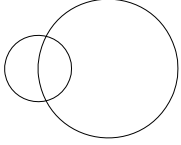
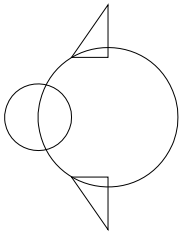
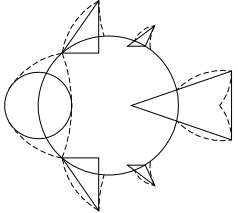
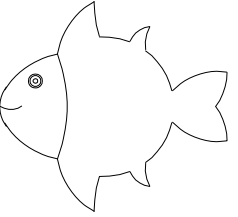
TASK 3: Develop designs with geometrical shapes - III

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 4: Develop designs with geometrical shapes - IV

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 5: Develop designs with geometrical shapes - V

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 6: Develop designs with geometrical shapes - VI

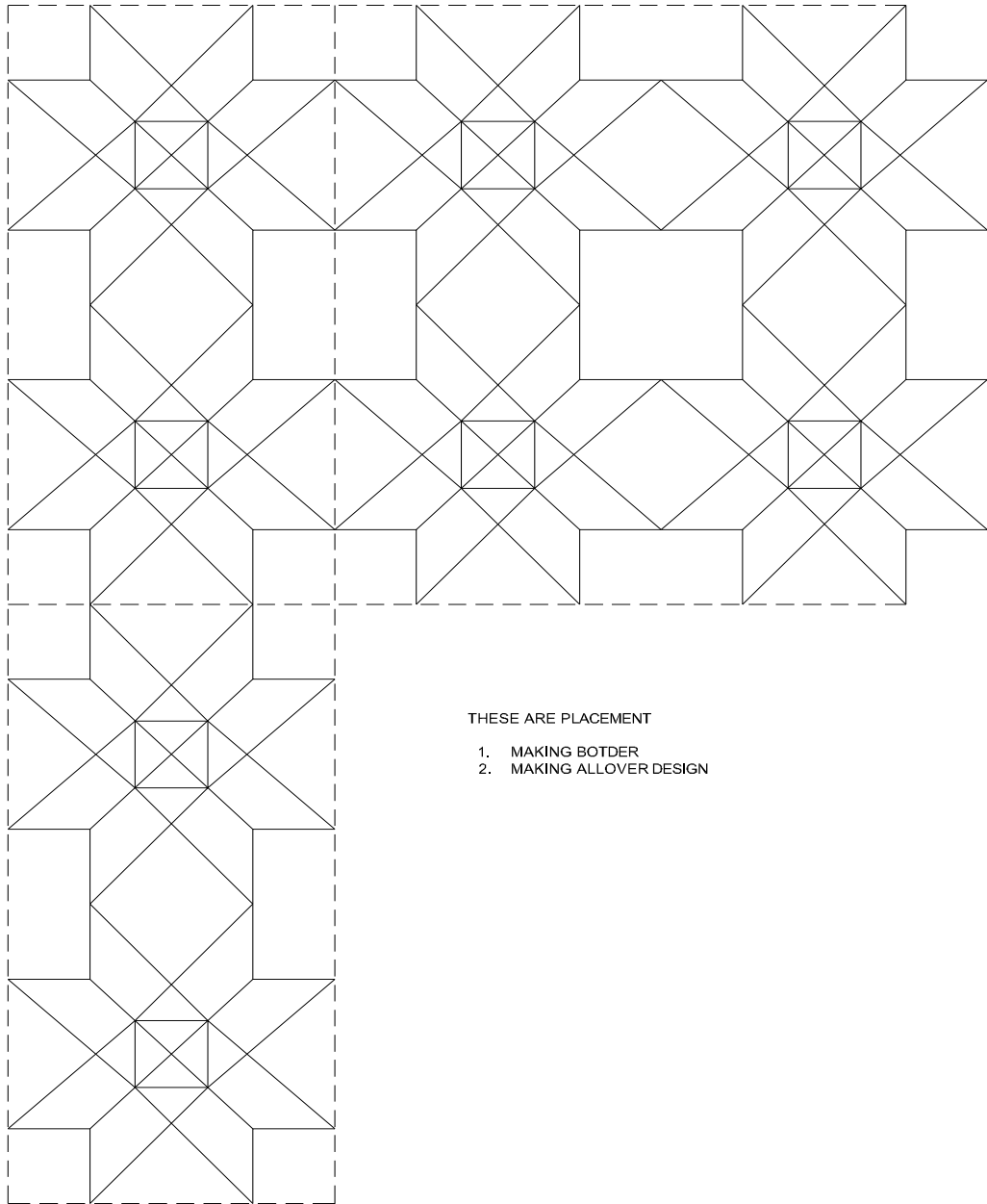
Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 7: Develop designs with geometrical shapes - VII

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 8: Develop designs with geometrical shapes - VIII

Fig 1



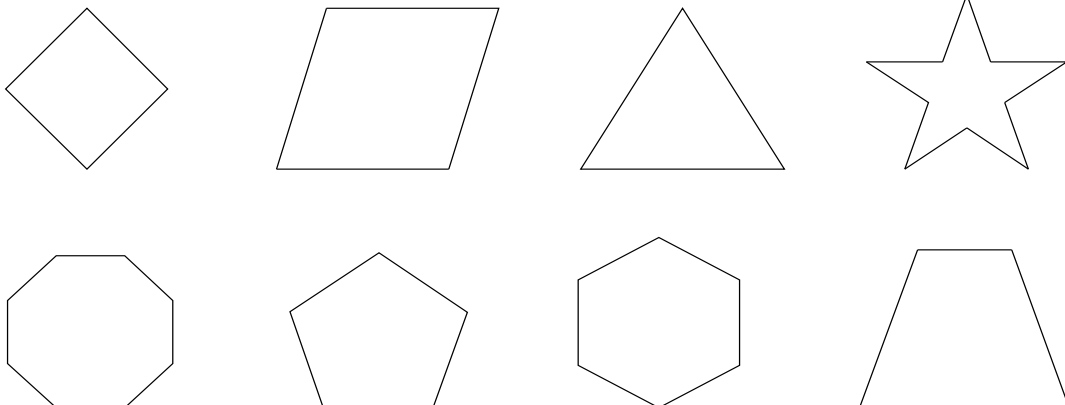
THESE ARE PLACEMENT

1. MAKING BOTDER
2. MAKING ALLOVER DESIGN

DRN2136H1

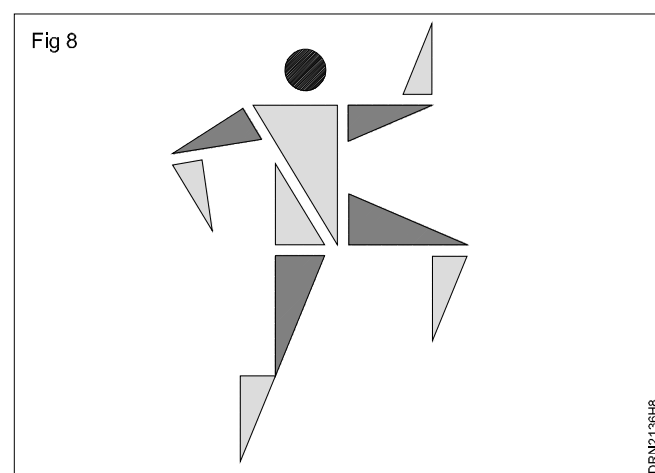
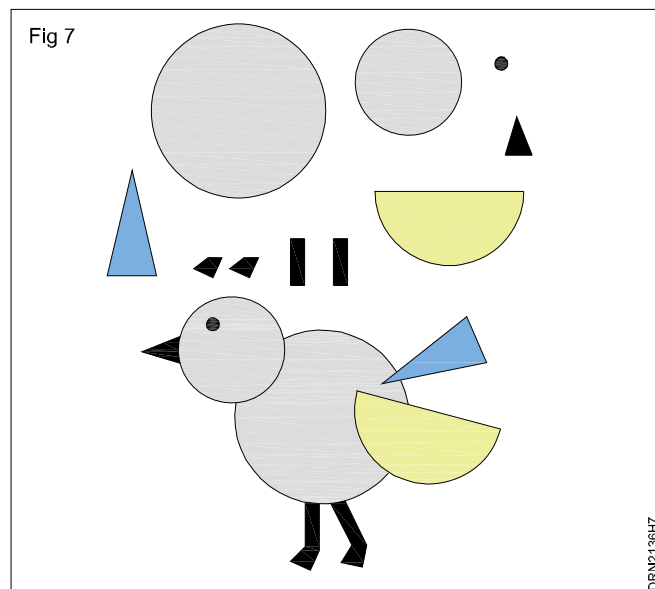
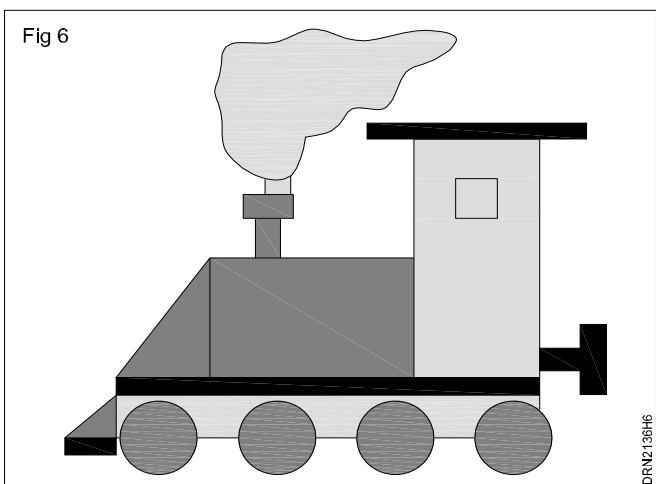
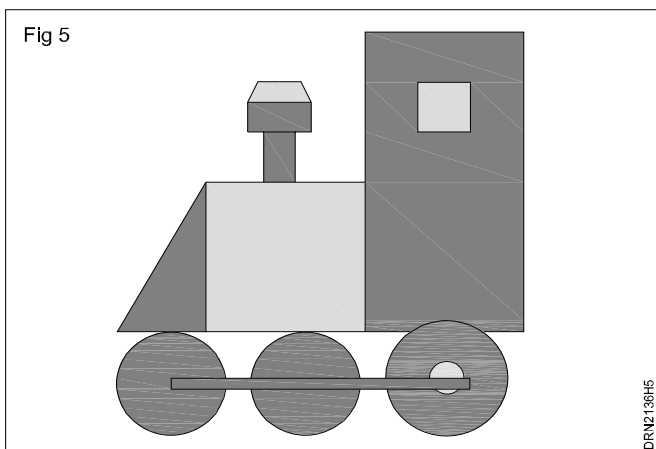
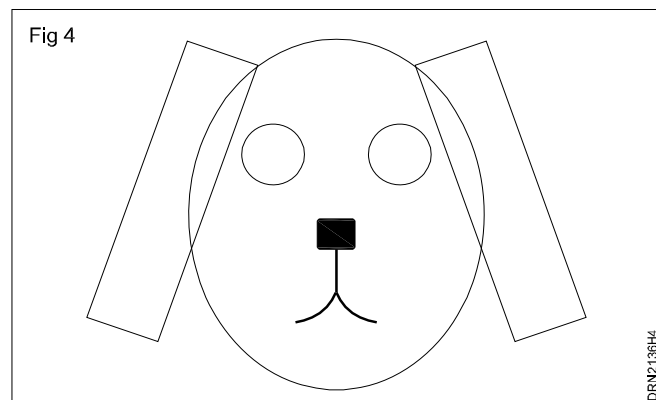
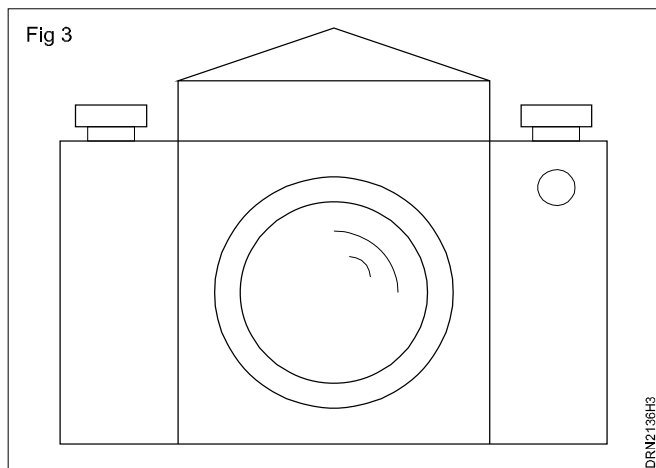
Geometrical shapes

Fig 2



DRN2136H2

Objects developed with geometrical shapes



Geometrical shapes converted to objects

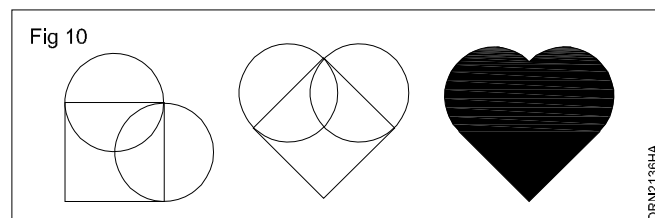
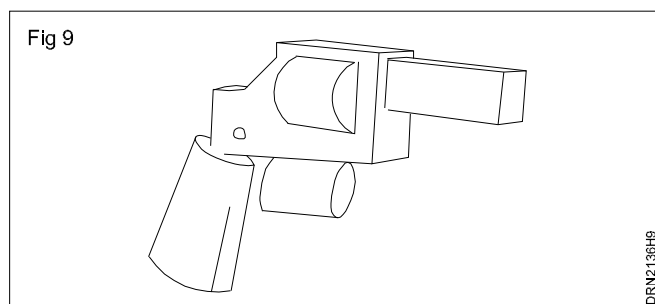
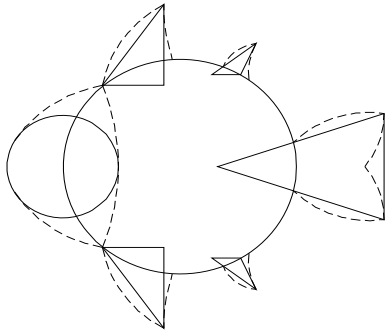
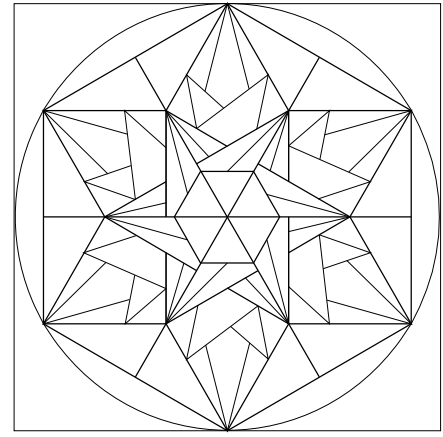


Fig 11



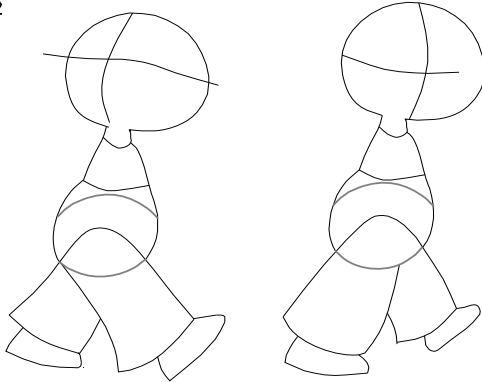
DRN2136HB

Fig 16



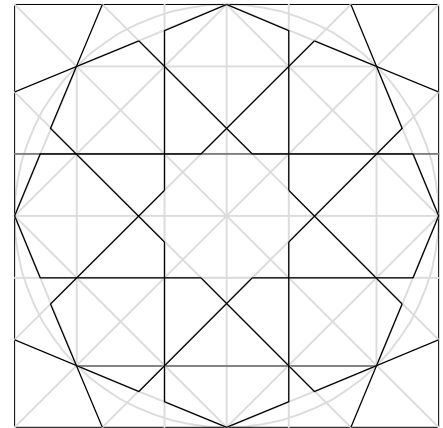
DRN2136HG

Fig 12



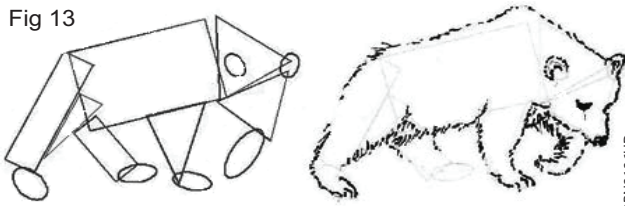
DRN2136HC

Fig 17



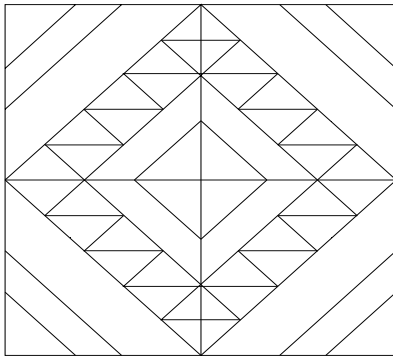
DRN2136HH

Fig 13



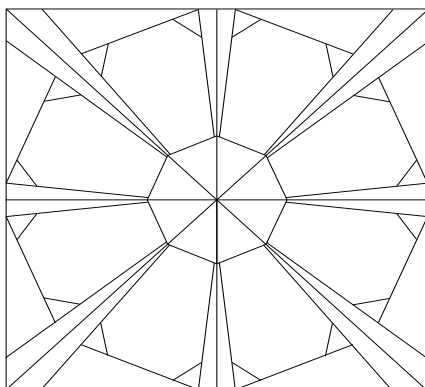
DRN2136HD

Fig 14



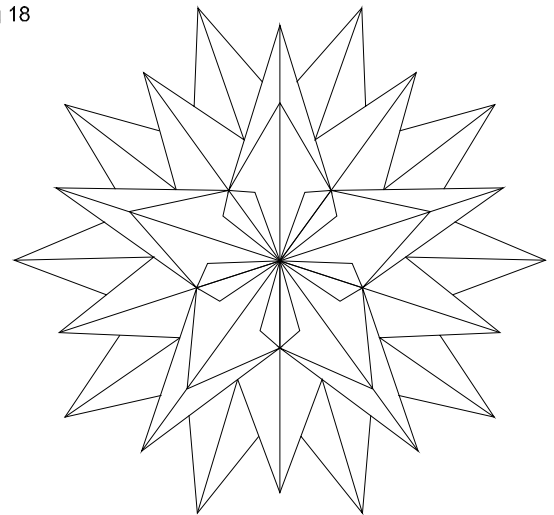
DRN2136HE

Fig 15



DRN2136HF

Fig 18



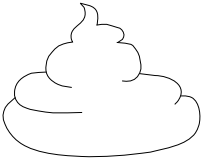
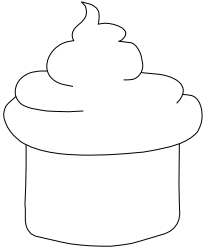
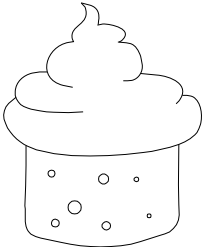
DRN2136HI

Develop designs using free hand method

Objectives: At the end of this exercise you shall be able to

- design using free hand method - I
- design using free hand method - II
- design using free hand method - III
- design using free hand method - IV
- design using free hand method - V
- design using free hand method - VI
- design using free hand method - VII
- design using free hand method - VIII.

TASK 1: Develop designs with freehand shapes - I

Fig 1 	
Fig 2 	
Fig 3 	
Fig 4 	

TASK 2: Develop designs with freehand shapes - II

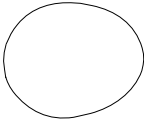
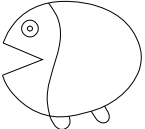
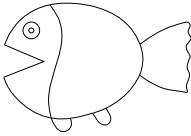
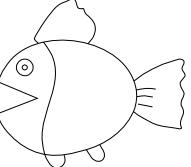
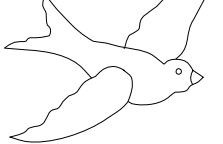
Fig 1 	
Fig 2 	

Fig 3		
Fig 4		

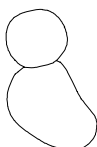
TASK 3: Develop designs with freehand shapes - III

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 4: Develop designs with freehand shapes - IV

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 5: Develop designs with freehand shapes - V

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 6: Develop designs with freehand shapes - VI

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 7: Develop designs with freehand shapes - VII

Fig 1		
Fig 2		
Fig 3		
Fig 4		

TASK 8: Develop designs with freehand shapes - VIII

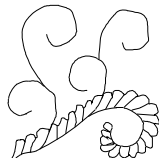
Fig 1	 Free hand sketching practice	
Fig 2		
Fig 3		

Fig 1		
Fig 2		
Fig 3		

Fig 1		
Fig 2		
Fig 3		

Make a color wheel and color scheme

Objectives: At the end of this exercise you shall be able to

- practice brushes and strokes
- make a color wheel
- color strokes on paper
- create shades of color
- create tones of color
- identify & marking of color
- draw color wheel
- paint the color wheel
- illustrate color relationship.

TASK 1: Practice - Brush

Brushes and strokes

Fig 1



Round.
This is a #6 Round Sable in this example.
Used for tapered lines, details, and dots.

Fig 2



Flat or Square sometimes called a Shader.
Handy for dry blending, square shapes and edges.

Fig 3



Filbert.
Petals, rounded strokes and blending.

Fig 4



Cat's Tongue (a Filbert with a longer loofe or hairs)
Nice for petals and scales, also offers good control for eyeliner.

Fig 5



Dagger.
Good for long varied strokes like ribbons and swirls. Can do very fine lines and marbling.

Fig 6

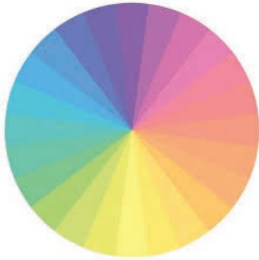


Rake or Comb.
Great for fur, drag blending for uneven effects, texture.

Fig 7

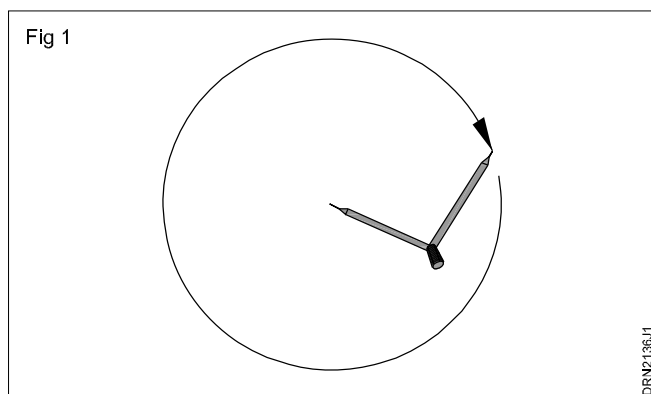


Deer Foot.
Stippling, texture, fur, uniform blotches.

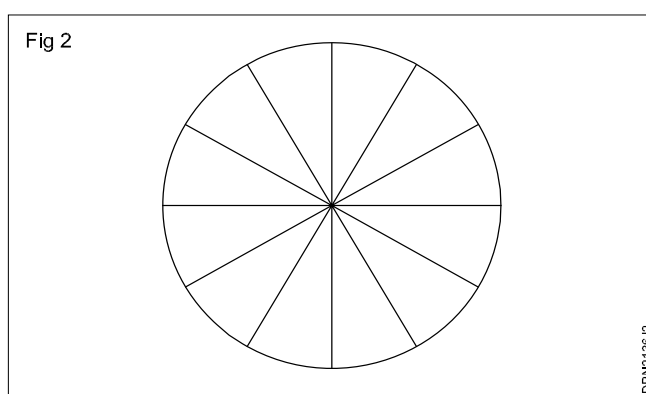
Types of tool	
8 Crayons 	
9 Colour Pencils 	
10 Pastels 	

TASK 2: Make a color wheel

- 1 Take the cartridge paper and place it on the drawing table.
- 2 Mark a point at the center of the paper.
- 3 Fix a sharp pointed pencil on the compass
- 4 Draw a circle of 5 cm radius with the marked point as its mid point, using compass and pencil. (Fig 1)



- 5 Divide the circle with straight lines into 12 equal parts from its center point (Fig 2)
- 6 Name each part of the color wheel with its appropriate sequence of colors to be painted in it.

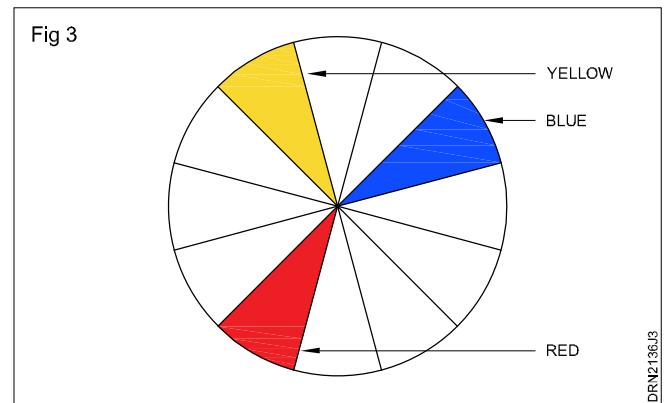


Sequence of colors in color wheel

- 1 Red
- 2 Red orange
- 3 Orange
- 4 Yellow orange
- 5 Yellow
- 6 Yellow green
- 7 Green
- 8 Blue green

- 9 Blue
- 10 Blue violet
- 11 Violet
- 12 Red violet

- 7 Paint the color wheel; with primary colors -yellow, red and blue in suitable parts of the color wheel using a clean painting brush. (Fig 3)
- 8 Allow it to dry before proceeding.



TASK 3: Color strokes on paper

- 1 Take A4 sheet one color, brush & cup of water.
- 2 Dip the brush in the cup of water & wipe of the excess water in the brush with cloth.
- 3 Mix one colors (Red) with little water on the pallet. (Let the mixture be of medium)
- 4 Start making strokes on the paper using the mixed color from one end to another.
- 5 The same pocedure is followed for all the 11 colors. (Red orange, orange, yellow orange, yellow, yellow, green, blue green, blue, blue violet, violet, red violet)

TASK 4: Practice shades of colors

- 1 Take A4 sheet one color, brush, cup of water & black colors.
- 2 Dip the brush in the cup of water and wipe of the excess water in the brush with cloth.
- 3 Mix one color (one drop) with black (1/2 drop)
- 4 By mixing these two colors we get a dark shade.
- 5 Start making strocks on the paper using this mixture from one end to another.
- 6 The same procedure is followed for all the 11 colors.

TASK 5: Practice tones of colour

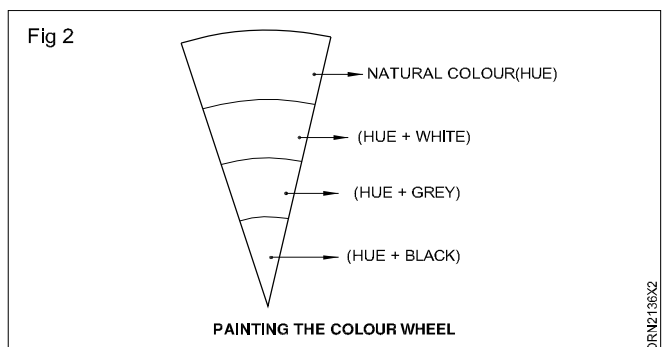
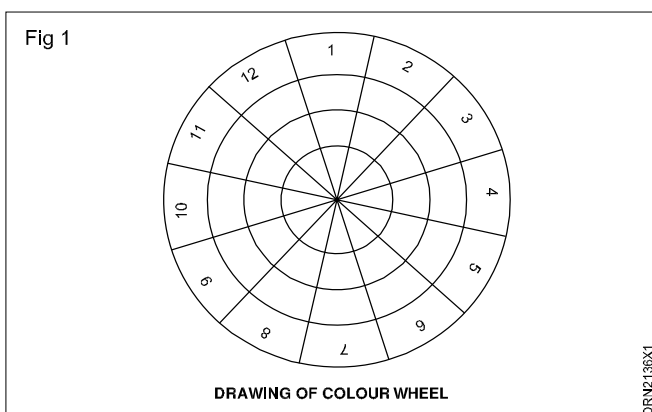
- 1 Follow the procedure of task 1,2 of the TASK 3 as previous procedure.
 - 2 Mix one colour with grey with the same propostion followed in procedure 3.
- Follow the procedure according to the task3 procedure 4,5,6.

TASK 6 : Identify and marking of colour

- 1 Mark primary, secondary and tertiry colours from the painted sheets of TASK 1.

TASK 7: Draw a of colour wheel

- 1 Draw a circle with a radius of 12.5 cms.



TASK 8: Paint the colour wheel

- 1 Take the draw colour wheel, painted papers.
- 2 Start painting with natural colours on the first row in order.
- 3 Paint the second row with tints.
- 4 Paint the fourth row with shades.

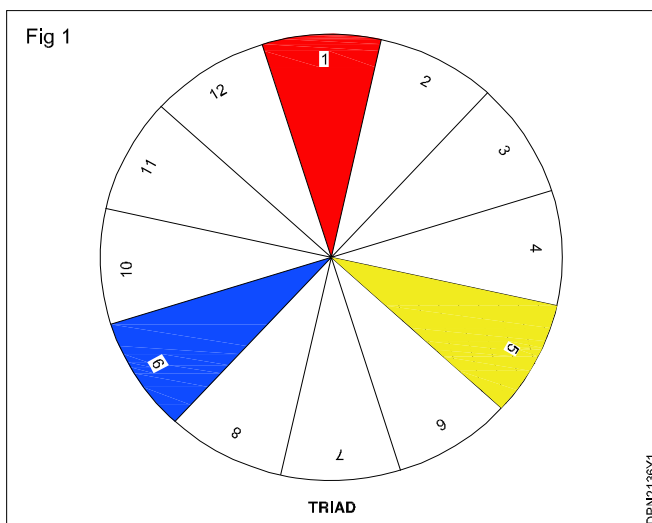
Colour wheel order

- | | |
|--------------|-----------------|
| 1 Red | 4 Yellow orange |
| 2 Red orange | 5 Yellow |
| 3 Orange | 6 Yellow green |
| | 7 Green |
| | 8 Blue green |
| | 9 Blue |
| | 10 Blue violet |
| | 11 Violet |
| | 12 Red violet |

TASK 9: Identify illustration of colour relationship

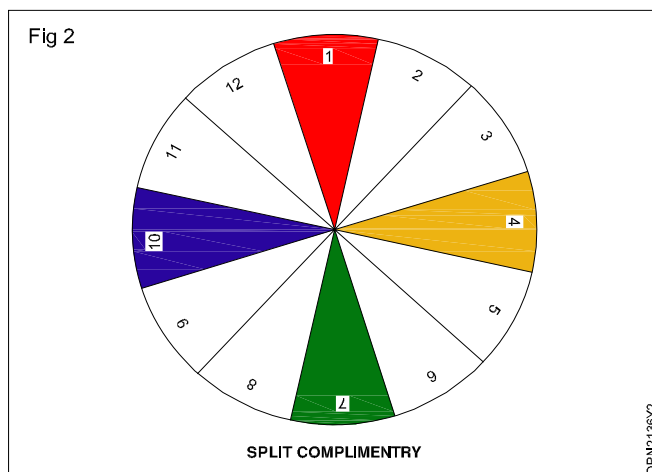
1 Triad

Three colours equally spaced from each other.



2 Split complimentary

Four colours equally placed on the colour.



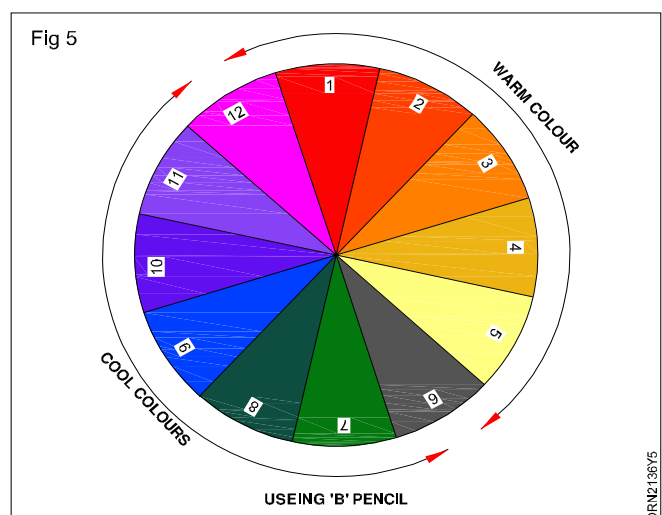
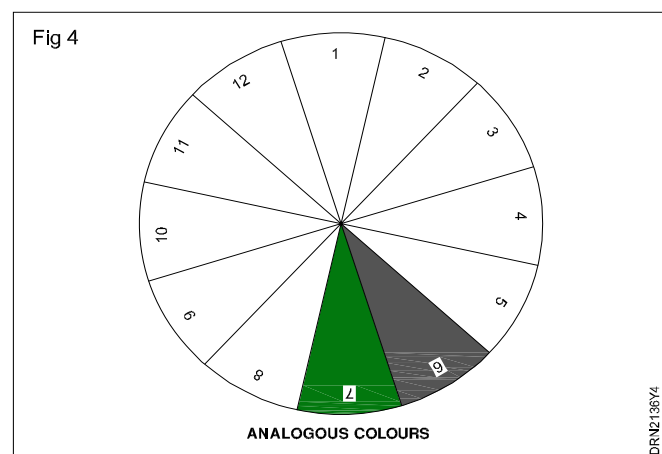
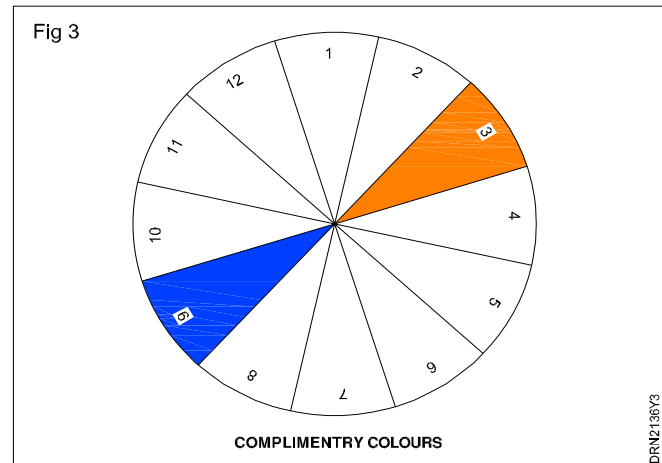
3 Complimentary colours.

Colours directly opposite to each other.

4 Analogous colour

Neighbouring colours on the colour wheel.

5 Warm and cool colours



Color scheme

Objectives: At the end of this exercise you shall be able to

- color a design with different color schemes
- identify the color & repeat in the given column.

Trace /draw a design suitable for coloring with various color schemes in 4 A4 papers.

TASK 1: Create natural color scheme

- | | |
|---|--|
| 1 Mix white and black color together in equal proportions in a palette to get grey color
2 Mix white and black colors together in different proportions to get different shades of grey color. | 3 Color the traced design with various shades of grey color. |
|---|--|

— — — — —

TASK 2: Create monochromatic color scheme

- | | |
|--|---|
| 1 Mix white and red (any color) together in equal proportions in a palette to get lighter shade of red color
2 Mix white and red (any color) in different proportions to get various shades of the color
3 Color the traced design with various shades of the mixed color. | 4 Mix black and red (any color) together in equal proportions in a palette to get darker shade of red color.
5 Mix black and red (any color) in different proportions to get various shades of the color.
6 Color the traced design with various shades of the mixed color. |
|--|---|

— — — — —

TASK 3: Create dichromatic color scheme

- | | |
|--|---|
| 1 Mix any two colors in different proportions to get a newer shade of dichromatic color. | 2 Color the traced design with the dichromatic color. |
|--|---|

— — — — —

TASK 4: Create related color scheme

- | | |
|---|---|
| 1 Mix any secondary color with any two primary colors or mix one primary color with two secondary colours to get a related color. | 2 Color the traced design with the related color. |
|---|---|

— — — — —

TASK 5: Identify the Colors & repeat in the given column

Colors Fig 1 PRIMARY COLORS  SECONDARY COLORS 	
Tertiary colors Fig 2 	

Color wheel Fig 3



TASK 6: Identify the Value of the hues/color & repeat in the given column

Value Chart–Light & Darkness of the Color

Dark Color: Any Color mixed with Black

Light color: Any color mixed with white

Fig 1



TASK 7: Identify the Intensity of the hues & repeat in the given column

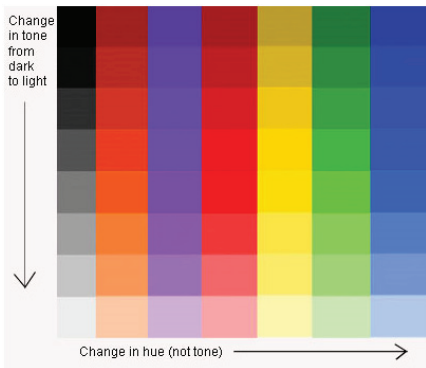
Intensity Chart– Brightness & Dullness of the Color Fig 1

Bright Color: Any color mixed with white/Light color.

Dull Color: Any color mixed with black/ dark color.

Practice the arrival of light and dark tones and hues repeatedly.

Fig 1



Sketching of Indian dress and western dress

Objectives: At the end of this exercise you shall be able to

- sketch the different types of saree blouse
- sketch the different types of ladies top
- sketch the different types of gents pyjama
- sketch the different types of gents shirts.

Requirements

Tools/Instruments

- Paper scissors medium size - 1 No.
- Drawing table - 1 No.
- Pencil sharpener - 1 No.
- Palette - 1 No.

Materials

- Cartridge paper of A3 size - 1 No.

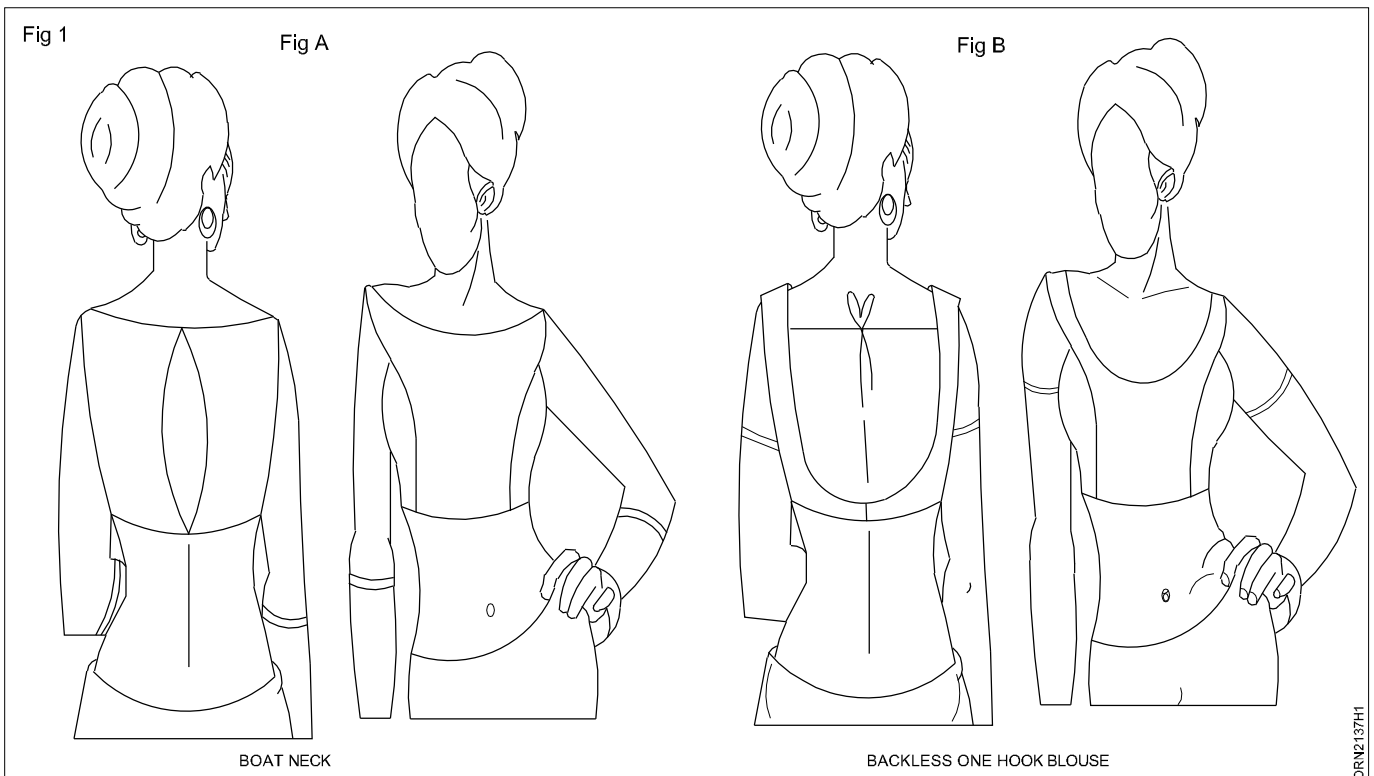
- 2H pencils - 1 No.
- Pencil eraser - 1 No.
- Black fine liner size 01 - 1 No.
- Round brush 1,3,6 sizes(each 1no.) - 1 No.
- Poster colour set - 1 No.
- Waste cloth - 1 No.
- Cup of water - 1 No.

PROCEDURE

TASK 1: Sketch different types of sari blouse

- 1 Sketch the different types of tops given in the following figures(Fig 1-6) using 2H pencil in the cartridge paper.
- 2 Using fine pencil lines for easy corrections.
- 3 Make a necessary corrections after completing the sketches.
- 4 Draw the sketches with black with fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Get the work checked by your instructor.



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Fig 2

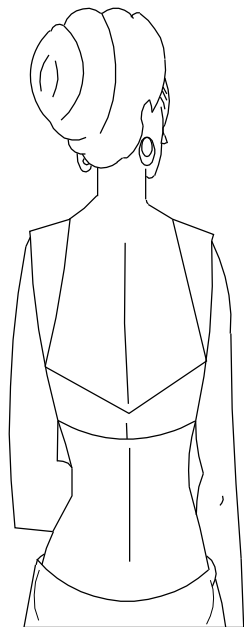
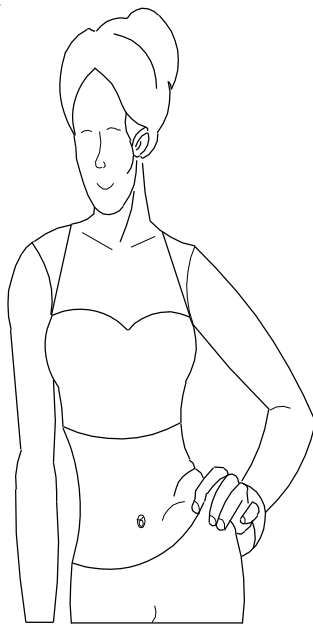
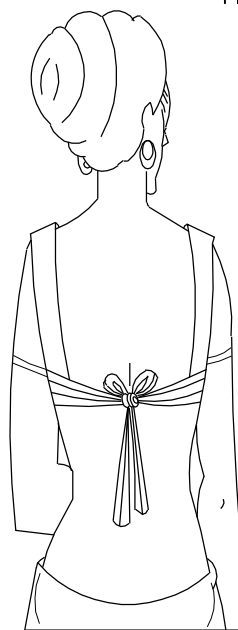


Fig C



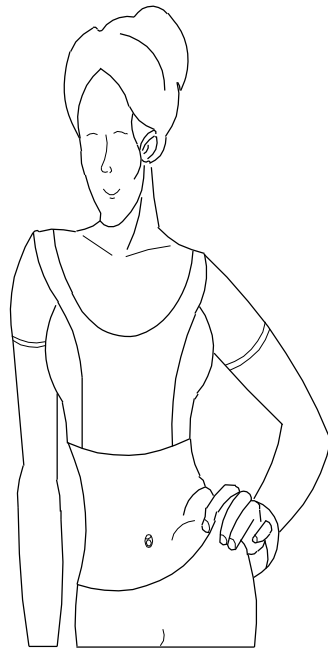
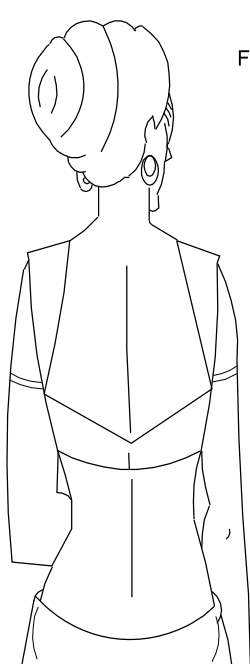
DIAMOND WITH SWEETHEART

Fig D



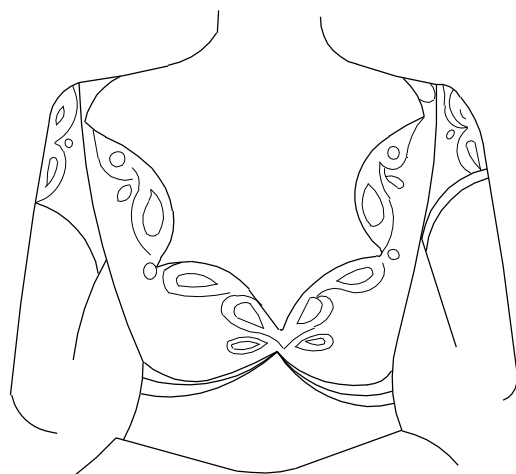
TIE UP BLOUSE

Fig E



DROP DOWN V

Fig F



DECORATIVE NECK

DRN2137H2

TASK 2: Sketch different types of ladies top

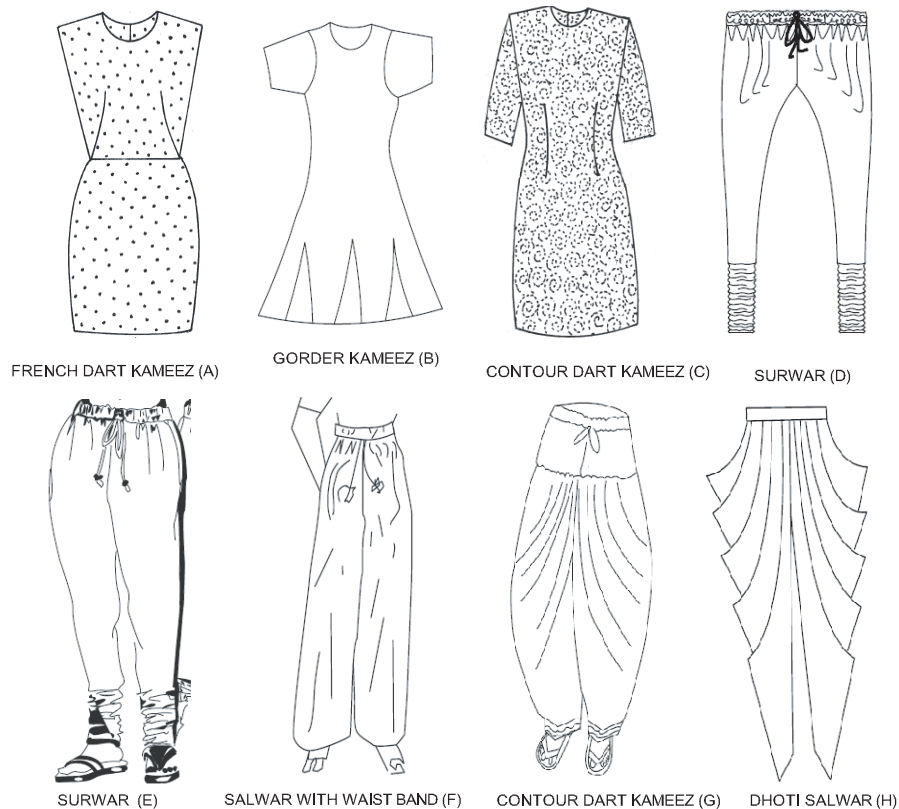
- 1 Sketch the different types of ladies suit in the following figures. (Figs 1 & 2)
Using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy corrections.
- 3 Make necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Fig 1



DRN2137/1

Fig 2



TASK 3: Sketch different types of gent's pyjamas

- 1 Sketch the different types of gent's kurtha given in the following figure (Fig 1-9) using 2H pencil in the cartridge paper.
- 2 Use fine pencil lines for easy correction.
- 3 Measure necessary corrections after completing the sketches.
- 4 Draw the sketches with black fine liner.
- 5 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.
- 6 Design a garment according to the theme "Gents pyjamas".
- 7 Decide the fabrics suitable for the designed garment.
- 8 Sketch the designed garment with its detailed style features.
- 9 Apply suitable colours to the garment with proper effects.

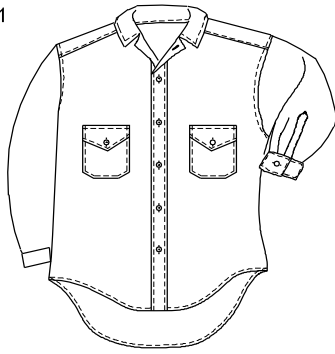


TASK 4: Sketch different types of shirts

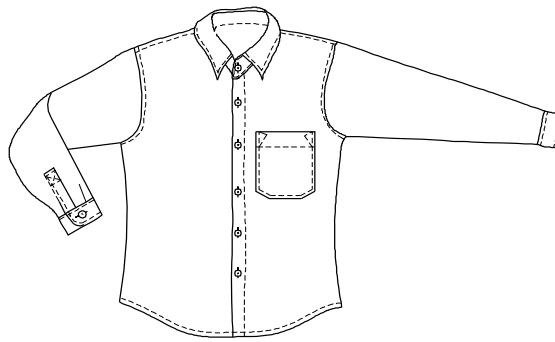
- 1 Sketch the different types of shirts given in the following figures (Fig 1 to Fig 10) using 2H pencil in the cartridge paper, use fine pencil lines for easy corrections.
- 2 Make necessary corrections after completing the sketches.
- 3 Draw the sketches with Black fine liner.
- 4 Choose suitable colours and apply them as required to get the effect using poster colours and brushes of suitable sizes.

Get the work checked by your instructor.

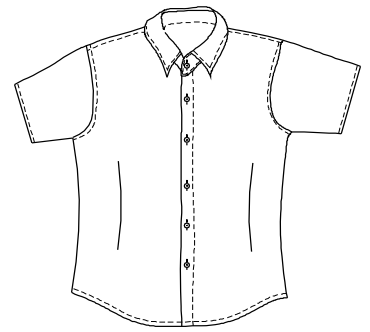
Fig 1



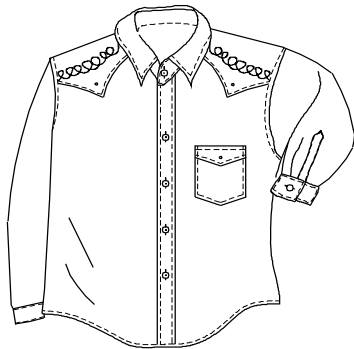
LUMBERJACK / LOGGER'S SHIRT (A)



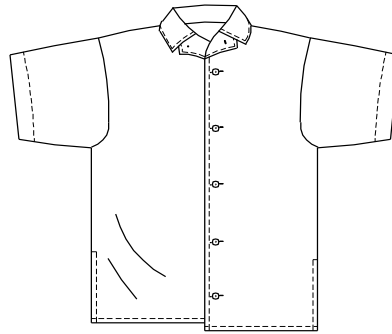
SELF YOKE GENTS SHIRT (B)



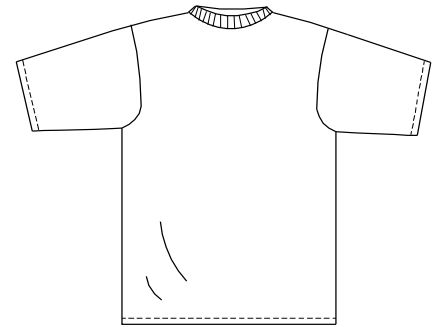
LADIES SHIRT (C)



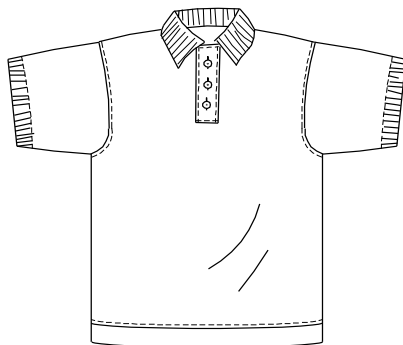
WEATERN SHIRT (D)



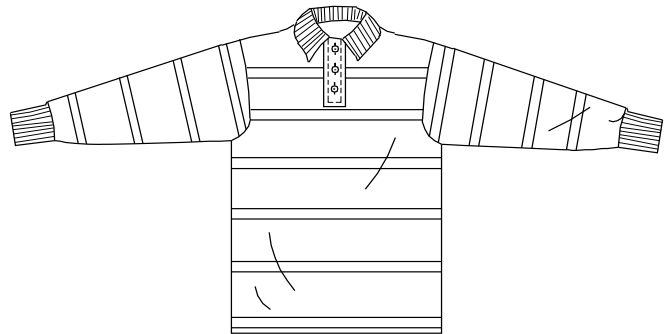
BOWING SHIRT (E)



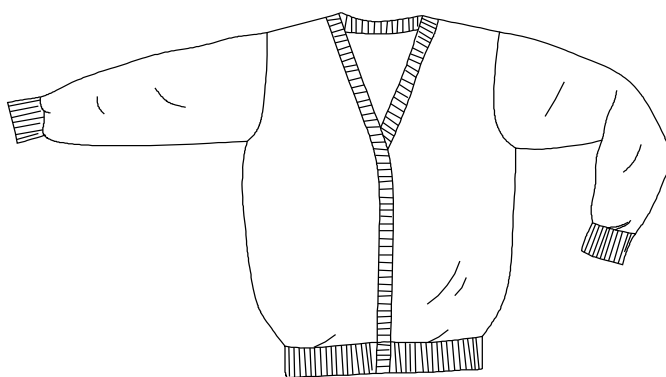
'T' SHIRT (F)



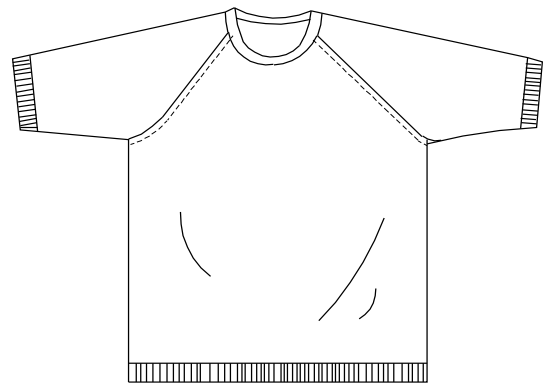
POLO SHIRT (G)



RUGBY SHIRT (H)



CARDIGAN (I)



RAGLAN 'T' SHIRT (J)

DRN2137X1

Sketching of western dress

Objective: At the end of this exercise you shall be able to

- sketch the different types of western dress.

TASK 1: Draw different types of western dress

- 1 Take a page of cartridge paper.
- 2 Draw a garment used for office give below by free hand drawing using 2H pencil. (Fig 1)
- 3 Follow the proportion while sketching.
- 4 Complete the figure often proper corrections.
- 5 Decide which colours to use.
- 6 Apply the poster colours with proper effects using suitable brush sizes.

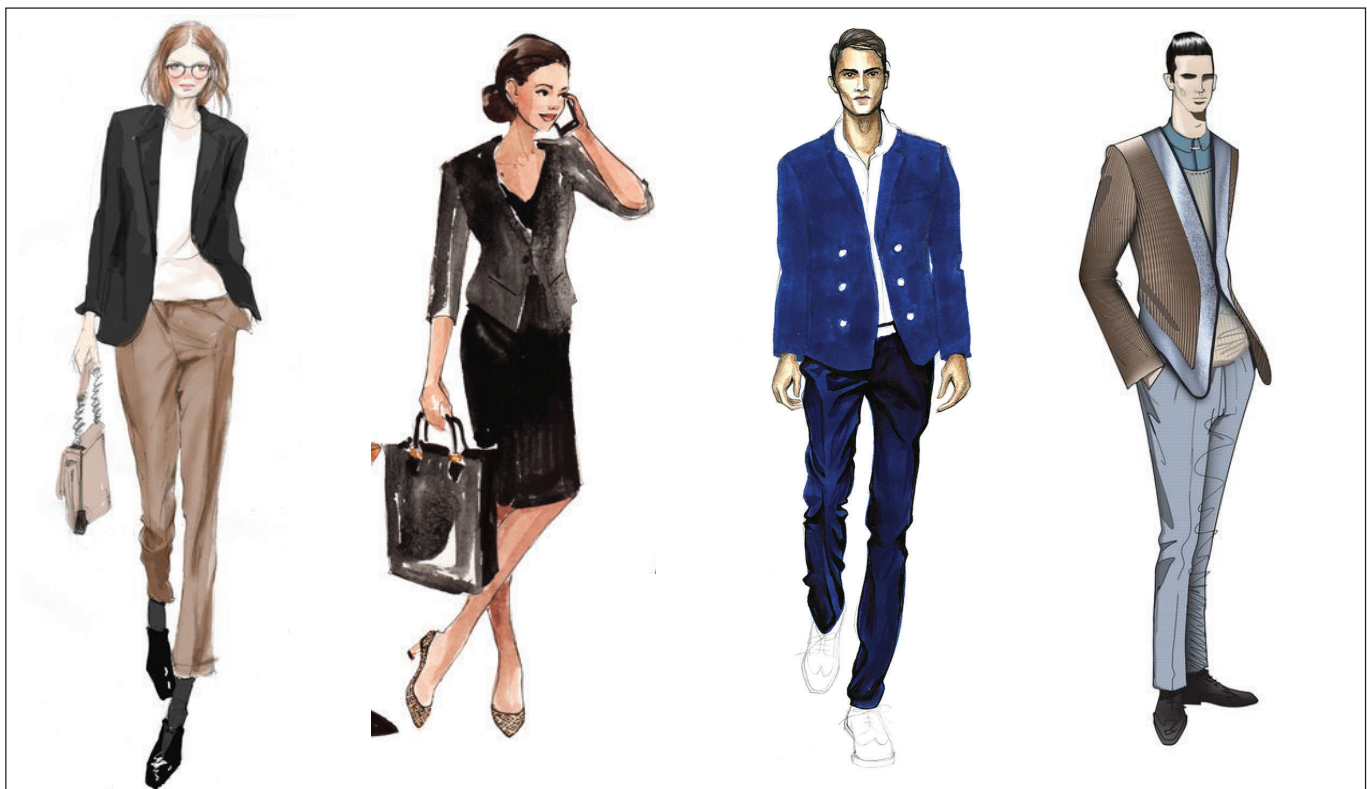
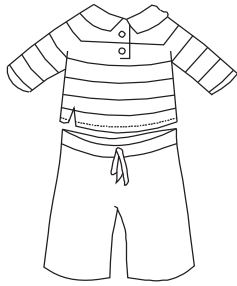
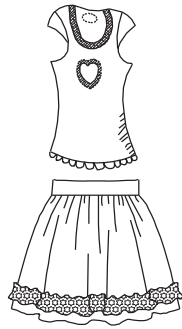


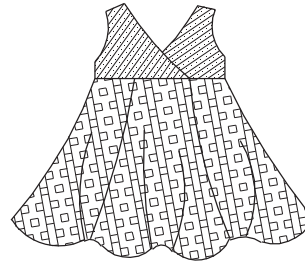
Fig 1



PURITAN COLLAR
T-SHIRT WITH SHORTS



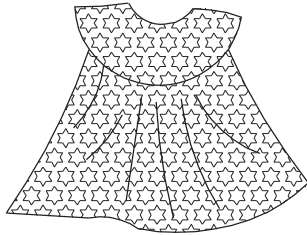
CAP SLEEVE TOP WITH
LAYERED SKIRT



WRAP NECK FROCK



PLAIN FROCK
SLEEVELESS



CROCHET FROCK



MIRAND



YOKE FROCK



GATHERING FROCK



BABY MIRANDA



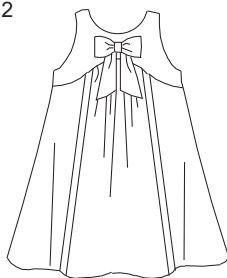
SLEEVELESS MIRANDA



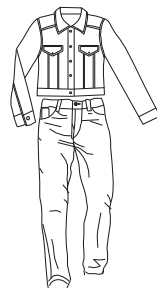
FROCK

DRN2137Y1

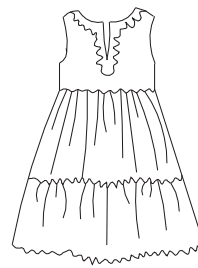
Fig 2



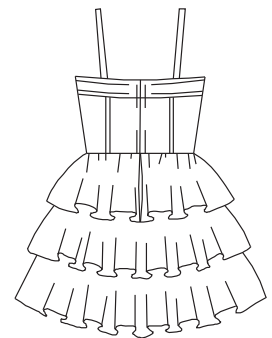
DECORATIVE YOKE BOW FROCK



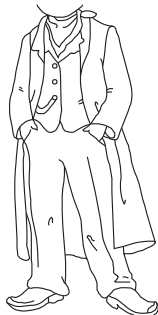
SHIRT AND PANT



DOUBLE LAYER FROCK



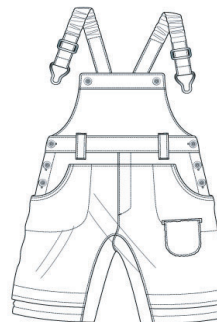
NOVELTY GATHER FROCK



KIDS COAT SUIT



GIRL PARTY GOWN



SLACK



T-SHIRT

Pattern of ladies block pattern set and size chart

Objective: At the end of this exercise you shall be able to

- prepare ladies' block.

Requirements

Materials

- | | | | |
|------------------------|---------|-----------------------|---------|
| • Bodice block pattern | - 1 No. | • Skirt block pattern | - 1 No. |
| • Sleeve block pattern | - 1 No. | • Brown sheets | - 3 Nos |
| • Brown sheets | - 4 Nos | | |

Standard Childs Trousers Block Size 110

Body Measurements

- | | | | |
|-----------------|------------------|-------------|-----------|
| • Hip | = 64 + 2 = 66 cm | • Crotch | = 18.5 cm |
| • Waist | = 56 + 2 = 58 cm | • Hem Width | = 32 cm |
| • External Seam | = 63 cm | | |

Ladies Bodice Block

Size - 14 Medium

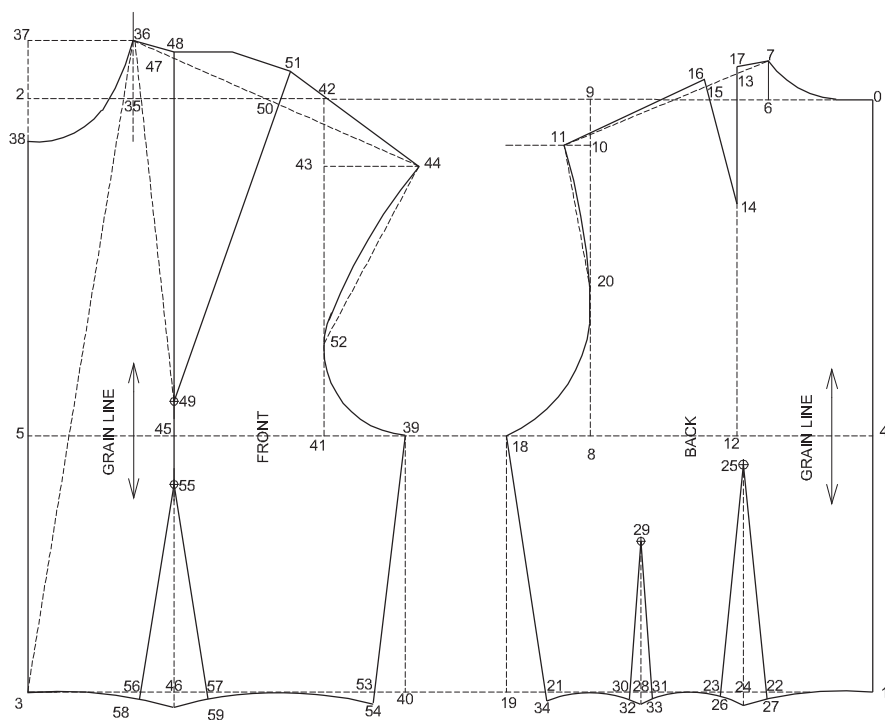
Body Measurements

- | | | | |
|--------------|----------------------|-----------------------|------------------|
| Bust Width | = 90 + 6 = 96 cm | Bust Dart | = 7.8 cm |
| Waist | = 70 + 2 = 72 cm | Neck to Waist (Front) | = 43.5 cm |
| Base of Neck | = 35 + 1 = 36 | Neck to Waist (Back) | = 39 cm |
| Neck Back | = 6 + 1 = 7 | Depth of Arm hole | = 22 cm |
| Neck Front | = 6 + 0.75 = 6.75 cm | Width of Arm hole | = 11 cm |
| Across Back | = 35.5 + 2 = 37.5 cm | Bust Level | = 32 - 8 = 24 cm |
| Shoulder | = 13 | | |

PROCEDURE

TASK 1 : Prepare ladies' block

Fig 1



Construction of Block

Draw a vertical line

Square out from 0

0-1= 39 cm (Neck to waist Back)

0-2= 56 cm ($1/2$ Bust + 8)

Square out from 1 & square down from 2 & mark 3

0, 1, 2, 3 is a Frame

Back

0-4= 22 cm (Depth of Armhole)

Square out from 4 & mark 5

0-6= 7 cm (Back Neck)

Square up from 6

6-7 = 2.5 cm

Shape 7-0 (Back Neck)

4-8= 18.8 cm ($1/2$ Across Back)

Square up from 8 & mark 9

9 - 10 = 3 cm (Drop back Shoulder)

Square out 10 Shoulder Line

7-11= 14.5 cm (Shoulder + 1.5 cm Dart)

4 - 12 = 9 cm (True Bust/10)

7 - 13 = 3 cm

Join 12 - 13

13 - 14= 8 cm (Dart Length)

13 - 15= 1.5 cm

Join 14 - 15 & extend 0.5 cm & mark 16

Join 14 - 13 & extend 0.5 cm & mark 17

Shape 17 - 7 & 16 - 11

8 - 18 = 5.5 cm ($1/2$ Arm Hole Width)

Square down from 18 & mark 19

10 - 20= $\frac{1}{2}$ of 10 - 8

Join 11 - 20

Shape 11 - 20- 18 (Back Arm Hole)

1 - 21= 21.5 cm $[(W/4 (-1 \text{ cm}) + \text{Darts})]$

1 - 22= 7.2 cm (W/10)

22 - 23= 3 cm (Darth Width)

22 - 24= 1.5 cm ($1/2$ of Dart Width)

Square up from 24

24 - 25= 15 cm (Dart Length)

Join 25 - 23 & extend 0.5 cm & mark 26

Join 25 - 22 & extend 0.5 cm & mark 27

Square up from 28

23 - 28= $\frac{1}{2}$ of 23 - 21

28 - 29= 10 cm (Dart Length)

28 - 30= 0.75 cm (Dart Width 1.5 cm)

Join 29 - 30 & extend 0.5 cm & mark 32

28 - 31= 0.75 cm (Dart Width 1.5 cm)

Join 29 - 31 & extend 0.5 cm & mark 33

Extend point 21 by 0.5 cm & mark 34

Shape 34 - 32, 33 - 26, 27 - 1

0, 1, 34, 18, 20, 11, 7, 0 is Back Bodice.

Front

2 - 35= 6.75 cm (Front Neck)

Square up & Down from 35

3 - 36 = 43.5 cm (Front Neck to waist)

Square out from 36 & Square up from 2 & mark 37

37 - 38 = 6.75 cm

Shape 38 - 36

5 - 39 = 25.5 cm

Square down from 39 & mark 40

39 - 41= 5.5 cm ($1/2$ Armhole width)

Square up from 41 & mark 42

42 - 43= 4.5 cm

Square out from 43

2 - 4 = 18 cm [1/2 Arm width (+1.5)]	
0 - 5 = 34 cm (1/2 Arm Length+6 cm)	Square in & out from 5
1 - 6 = 3 cm	Join 6 - 5
5 - 7 = 1 - 5	Square in & out from 7
7 - 8 = 8.75 cm (1/2 Natural Wrist + 1cm)	Join 3 - 8 & mark 9
9 - 10 = 1 cm	Shape 3, 10, 8
10 - 11 = 29 cm (Elbow Width)	Join 4 - 11
8 - 12 = 21.5 cm (Wrist)	Join 11 - 12
11 - 13 = 8.5 cm (Dart Length)	
11 - 14 = 2.5 cm (Dart Width)	
13 - 14 A = 11 - 13	Join 13 - 14 A
	Shape 8, 7, 1, 12
0 - 15, 0 - 16 = 2.5 cm	Join 15 - 3 & 16 - 4
	Divide 15 - 3 in four equal parts & mark 17, 18, 19.
	Divide 16 - 4 in four equal parts & mark 20, 21, 22.
	Square down from 17
17 - 23 = 1.2 cm	Square up from 19
19 - 24 = 0.8 cm	Square up from 20
20 - 25 = 0.6 cm	Square down from 21
21 - 26 = 0.6 cm	Square down from 22
22 - 27 = 1.2 cm	Shape 3, 23, 18, 24, 0 (Front Arm hole)
	Shape 0, 25, 26, 27, 4 (Back Arm Hole)
3, 23, 18, 24, 0, 25, 26, 27, 4, 11, 14, 12, 8, 10, 3 is Sleeve Block	

Ladies Trousers Block Size 14 Medium

Body Measurement

Trousers Length	= 100 cm	Waist	= 70 + 2 = 72 cm
Crotch	= 27 cm	Hip	= 98 + 2 = 100 cm
Hip Level	= 22 cm	Knee	= 38 + 10 = 46
		Hem Width	= 38 + 10 = 46

Construction of Ladies Trousers Block

Draw a line in the center & mark 0

Front

0 - 1 = 100 cm (External Seam)	Square in & out from 0 & 1 Crease Line
	Waist line & Hem Line
0 - 2 = 27 cm (Crotch Length)	Square in & out from 2 Crotch line
2 - 3 & 2 - 4 = 14.5 cm (Hip/8 + 2 cm)	
2 - 5 = 31.5 cm [1/2 of 2 - 1 (-Hip/20)]	Square in & out from 5 Knee Line
3 - 6 = 5 cm (Hip/20)	Square up from 6 & mark 7
	Shape 3 - 7

$7 - 8 = 20.5 \text{ cm } (w/4 (+1 \text{ cm}) + \text{Dart}) \text{ Dart } 1.5 \text{ cm}$

$8 - 9 = 1 \text{ cm}$

Shape 9 - 4

$0 - 10 \text{ \& } 0 - 11 = 0.75 \text{ cm}$

$0 - 12 = 8 \text{ cm (Dart Length)}$

Join 10 - 12 & 11 - 12 (Dart)

$5 - 13 \text{ \& } 5 - 14 = 12 \text{ cm (Hem width/4)}$

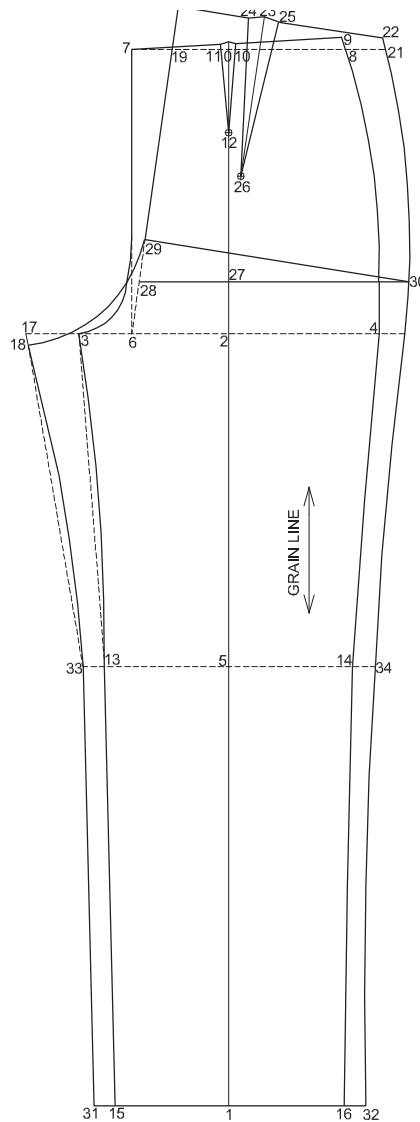
$1 - 15 \text{ \& } 1 - 16 = 11 \text{ cm [Hem width/4 (-1 cm)]}$

Join 16 - 14, 15 - 13 & 3 - 13

Shape 3 - 13 and Shape 9, 4, 14

7, 9, 4, 14, 16, 1, 15, 13, 3, 7 is Trousers Front

Fig 3



Back

$3 - 17 = 5 \text{ cm (Hip/20)}$

Square down from 17

$17 - 18 = 1 \text{ cm}$

$7 - 19 = 4 \text{ cm}$

Join 6 - 19 & extend by 4 cm & mark 20

$20 - 21 = 20 \text{ cm } [(W/4 (-1 \text{ cm}) + \text{Dart}) \text{ (Dart } 3 \text{ cm)}]$

Square up from 21

$21 - 22 = 1 \text{ cm}$

$20 - 23 = 8.5 \text{ [W/10 (+ 1.5 cm)]}$

Join 24 - 26, 25 - 26 (Dart)

0 - 27 = 22 cm (Hip Level) & mark 28

$$28 - 29 = 4 \text{ cm}$$

29 - 30 = 26 cm [Hip/4 (+1 cm)] (Seat angle)

Shape 18 - 29

1 - 31 & 1 - 32 = 13 cm (Hem width/4)

Join 31 - 33, 32 - 34 & 33 - 18

5 - 33 & 5 - 34 = 14 cm [Hem width/4 (+2 cm)]

Shape 33 - 18

Shape 22 - 30 - 34

20, 22, 30, 34, 32, 31, 33, 18, 29, 20 is Trousers back.

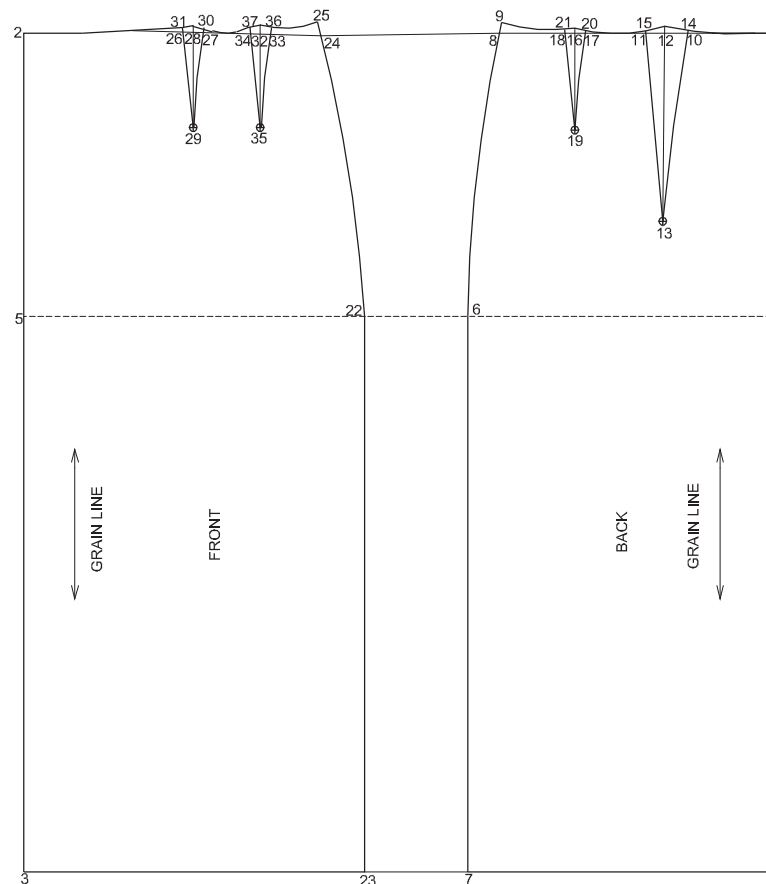
Standard Skirt Block Size Medium

Body Measurements

Waist = $70 + 2 = 72$ cm
Hip = $98 + 2 = 100$ cm

Hip Level = 22 cm
Skirt Length = 65 cm

Fig 4



Construction of Block

Draw a vertical line

Square out & down from 0

0-1= 65 cm (Skirt Length)

0-2 =58 cm ($1/2$ Hip + 8)

0,1,2,3 is a Frame

0-4 = 22 cm (Hip Level)

4-6= 24 cm [Hip/4 (-1 cm)]

0-8= 21.5 cm [w/4 (-1 cm)]+ dart

8-9= 1 cm

0-10 = 7.2 cm (Waist/10)

10-11= 3 cm (Dart Width)

12-13= 15 cm (Dart Length)

16 -17, 16 - 18= 0.75 cm (1.5 cm width of Dart)

16 - 19= 8 cm (Length of Dart)

0, 1, 7, 6, 9, 0 is skirt Back.

Front

5 - 22= 26 cm [Hip/4 (+1 cm)]

22 cm [w/4 (+ 1 cm) + Dart] (Two darts of 1.5 cm each.)

24 - 25= 1 cm

2 - 26 = 11.4 cm [(W/5 (-) 3]

26-27= 1.5 cm

28-29= 8 cm (Length of Dart)

32-33 & 32-34 = 0.75 cm (1.5 cm width of Dart)

32-35= 8 cm (Length of Dart)

2, 25, 22, 23, 3, 5 is Skirt Front.

Square out from 1 & square down from 2 & mark 3.

Square out from 4 & mark 5

Square down from 6 & mark 7

(1st dart 3 cm wide, 2nd dart wide)

Square up from 8 & mark 9

Shape 9-6

Mark 12 at center of 10-11

Square down from 12 & mark 13

Join 13 - 10 & extend 0.5 cm & mark 14

Join 13 - 11 & extend 0.5 cm & mark 15

Mark 16 at center of 8-11

Square down from 16

Join 19-17 & extend 0.5cm & mark 20

Join 19-18 & extend 0.5cm & mark 21

Shape 9 - 21, 20 - 15, 14 - 0.

Square down from 22 & mark 23. 2 - 24

Square up from 24

Shape 25 - 22

Mark 28 at center of 26 - 27

Square down from 28

Join 29-27 & extend 0.5cm & mark 30

Join 29-26 & extend 0.5cm & mark 31

Mark 32 at center of 27-24

Square down from 32

Join 35-33 & extend 0.5cm & mark 36

Join 35-34 & extend 0.5cm & mark 37

Shape 2-31, 30-37, 36-25

Sl. No.	Size	X-Small	Small	M-Small	Medium	M-Large	Large	X-Large
	Body Part	8	10	12	14	16	18	20
1	Bust	81+6=87	84+6=90	87+6=93	90+6=96	94+6=100	98+6=104	103+6=109
2	Waist	62+2=64	66+2=68	68+2=70	70+2=72	74+2=76	78+2=80	82+2=84
3	Small Hip	81+2=83	84+2=86	87+2=89	90+2=92	94+2=96	98+2=100	103+2=105
4	Big Hip	89+2=91	92+2=94	95+2=97	98+2=100	102+2=104	106+2=108	111+2=113
5	Neck to Waist Back	37.5	38	38.5	39	39.5	40	40.5
6	Dress Length (Skirt)	X-5=60	X-3=62	X-1=64	X=65	X+1=66	X+3=68	X+5=70
7	Depth of Armhole	20.5	21	21.5	22	22.5	23	23.5
8	Hip Level	20.5	21	21.5	22	22.5	23	23.5
9	Across Back	33.6+2=35.6	34+2=36	34.8+2=36.8	35.5+2=37.5	36.6+2=38.6	37.6+2=39.6	38.8+2=40.8
10	Shoulder	12.25	12.50	12.75	13	13.25	13.5	13.75
11	Shoulder point front	4	4.25	4.50	4.75	5	5.25	5.50
12	Shoulder point Back	3	3	3	3	3	3	3

13	Rise of Neck point	2.5	2.5	2.5	2.5	2.5	2.5
14	Base of Neck	32+1=33	33+1=34	34+1=35	35+1=36	36+1=37	37+1=38 38+1=39
15	Back Neck 1/6 Neck+1	5.5+1=6.5	5.7+1=6.7	5.8+1=6.8	6+1=7	6.2+1=7.2	6.3+1=7.3 6.5+1=7.5
16	Front Neck 1/6 Neck+0.7	5.5+0.7=6.2	5.7+0.7=6.4	5.8+0.7=6.5	6+0.7=6.7	6.2+0.7=6.9	6.3+0.7=7 6.5+0.7=7.5
17	Bust Level	29-7.25=21.75	30-7.5=22.5	31-7.75=23.25	32-8=24	33-8.25=24.75	35.5-8.5=27 37-8.75=28.25
18	Neck to Waist(Front)	49.25-7.25=42	50-7.5=42.5	50.75-7.75=43	51.5-8=43.5	52.5-8.25=44.25	53.5-8.5=44 54.5-8.75=45.75
19	Bust Dart	6	6.6	7.2	7.8	8.6	9.4 10.2
20	Armhole Width	8.1+2=10.1	8.4+2=10.4	8.7+2=10.7	9+2=11	9.4+2=11.4	9.8+2=11.8 10.3+2=12.3
21	Armhole	39.9	41	41.5	42.5	43.5	44.5 46
22	Sleeve Crown	39.9/3=13.3	41/3=13.6	41.5/3=13.8	42.5/3=14.2	43.5/3=14.5	44.5/3=14.8 46/3=15.3
23	Arm Length	66-12.25=53.75	67-12.5=54.5	68-12.75=55.25	69-13=56	70-13.25=56.75	71-13.5=57.5 72-13.75=58.25
24	Arm Width	25+5=30	26+5=31	27+5=32	28+5=33	29+5=34	30+5=35 31.5+5=36.5
25	Elbow Width	25+1=26	26+1=27	27+1=28	28+1=29	29+1=30	30+1=31 31+1=32
26	Wrist	14+6=20	14.5+6=20.5	15+6=21	15.5+6=21.5	16+6=22	16.5+6=22.5 17+6=23

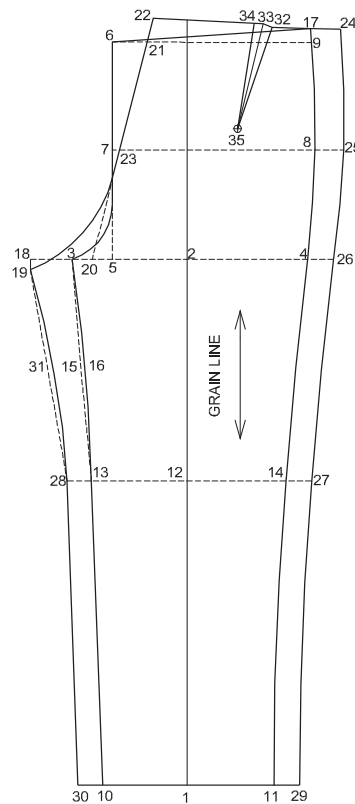
Drafting of children and teenager block pattern

Objective: At the end of this exercise you shall be able to

- prepare children's block pattern set.

TASK 1 : Prepare children's block pattern set

Fig 1



Standard Childs Trousers Block Size 110

Construction of Block

Front

Draw a vertical line in the center & mark 0

0-1= 63 cm (External Seam)

0-2 = 18.5 cm (Crotch Length)

2-3 & 2-4 = 9.75 cm (Hip/8+1.5cm)

3-5 = 3.3 cm (Hip/20)

6-7= 1/2 of 5 - 6

7-8= 16.5(Hip/4)

6-9= 15.5 (W/4 +1cm)

1 - 10 & 1-11= 7 cm (Hem width/4 - 1cm)

2-12 = 18.95 cm (1/2 of ILL-Hip/20)

12-13 & 12-14 = 8 cm (Hem Width / 4)

3-15 = 1/2 of 3/13

15-16 = 0.75 cm

9-17= 1 cm

6, 17, 8, 4, 14, 11, 1, 10, 13, 15, 3, 7, 6 is front of Trousers Block

ILL is Inside Leg Length

Crease Line

Square in & out from 2

Hip Line

Square up from 5 & mark 6

Square out from 7

Square out from 6

Square out from 1 Waist Line

Hem Line

Square in & out from 12 Knee Line

Join 10-13 & 11-14 & 3-13

Square out from 15, Shape 7-3

Shape 3-13,

Square up from 9

Shape 17-6, Shape 17, 8,4,14

Back

Extend line 2-3 from 3

3-1 $8 = 3.3 \text{ cm (Hip/20)}$

18-19 = 1 cm

3-20 = 1.65 cm (1/2 of 3-5)

6-21 = 3.3 (Hip/20)

22-24 = 15.5 cm $[W/4 (-1 \text{ cm}) + \text{Dart}]$

23-25 = 18.5 cm $[\text{Hip}/4(+2 \text{ cm})]$

4-26 = 2 cm

12-27, 12-28 = 10 cm $[\text{Hem Width}/4 (+2 \text{ cm})]$

1-29, 1-30 = 9 cm $\{\text{Hem Width}/4 (+1 \text{ cm})\}$

28-31 = 0.75 cm

24 - 32 = 5.6 cm (True waist/10)

32-33, 33-34 = 0.75 cm (Dart width 1.5 cm)

33 - 35 = 9 cm (Dart Length)

22, 24, 25, 26, 27, 29, 30, 28, 31, 19, 23, 22 is Trousers Back.

Square down from 3

Join 20-21 & extend by 2.5 cm & mark 22

Mark 23 on Hip line

Shape 22,17,24

Join 27-29, Shape 24, 25, 26, 27

Join 30 - 28, Join 19-28

Shape 19, 31, 28

Shape 23-19

Create a line from 33 Parallel to 22 - 23

Join 35 - 32, 35 - 34

Childs Bodice Block Size 91 Age 2-3 Years

Body Measurements

Bust Width = $54 + 10 = 64$

Neck to Waist = 23

Back Neck = $\text{Bust}/16 + 0.5 = 4 + 0.5 = 4.5$

Front Neck = Back Neck + 1.25 cm

Arm Hole Width = $\text{Bust}/8 - 0.5 \text{ cm} = 8.5 \text{ cm}$

Across Back = $21.6 + 2 = 23.6$

Shoulder = 8 cm

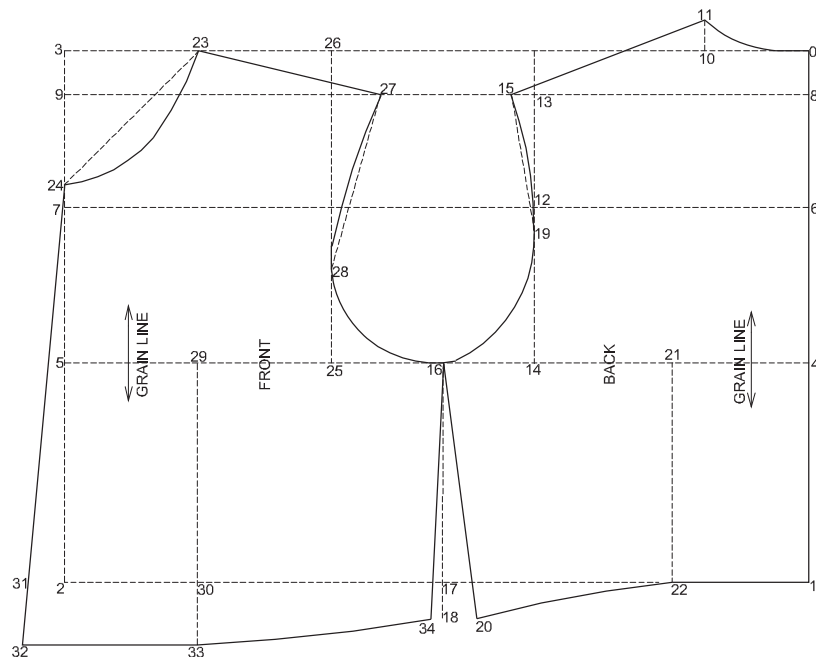
Length of Arm = $39 - 8 = 31 \text{ cm}$

Top Arm Width = $16 + 8 = 24 \text{ cm}$

Depth of Crown = $24/3 = 8 \text{ cm}$

Elbow Width = $16 + 2.5 = 18.5 \text{ cm}$

Fig 2



Construction of Block

0-1= 23 cm (Neck to waist)

1-2= 32 cm (1/2 Bust girth)

Back of Bodice Block

0-4 = 13.5 cm [1/2 of 0-1 (+2 cm)]

0-6 = 6.75 cm (1/2 of 0-4)

0-8 = 1.875 cm [1/2 of 0-6 (-1.5 cm)]

0-10 = 4.50 cm (Bust/16 +0.5 cm)

10-11= 1.25 cm

6-12 = 11.8 cm (1/2 of Across Back)

13-15= 1 cm

4-16 = 15 cm [1/2 of 4-5 (-1cm)]

17-18 = 1.5 cm

13-19 = 1/2 of 13-14

18-20 = 1.5 cm

4-21 = 5.9 cm (1/2 of 14-4)

0, 1, 22, 20, 16, 19, 15, 11, 0 is Bodice Back

Front of Bodice Block

3-23 = 5.75 cm (Back neck + 1.25 cm)

3-24 = 5.75 cm

14-25 = 8.5 cm (Bust/8 +0.5 cm)

23-27 = 8 cm(Shoulder)

26-28 = 1/3 of 25-26

5-29 = 5.85 cm (1.2 of 5-25)

2-31 = 2 cm

31-32 = 2.5 cm

30-33 = 2.5 cm

18- 34 = 0.5 cm

23, 27, 28, 16, 34, 32, 24, 23 is Bodice Front

Square out horizontally & vertically from 0

Square out from 0 and square up from 2 & mark 3
Now 0,1,2,3 is a Frame

Square Out from 4 and mark 5 Bust Line

Square Out from 6 and mark 7 Across Back line

Square Out from 8 and mark 9 Shoulder Line

Square up from 10

Shape 11-0 Back Neck

Square up & down from 12 & mark 13 & 14

Join 11-15

Square down from 16 & mark 17

Square down from 17

Join 15-19

Shape 15,19 & 16 Arm Hole shape

Square in & Out from 18

Join 16-20

Square down from 21 & mark 22

Shape 20-22

Join 23-24 (guide line)

Shape 23-24 Front Neck Line

Square up from 25 & mark 26

Join 23-27 on shoulder line

Join 27-28

Shape 27, 28, 16 Front Arm Hole

Square down from 29 & mark 30

Square out from 2

Join 24-31

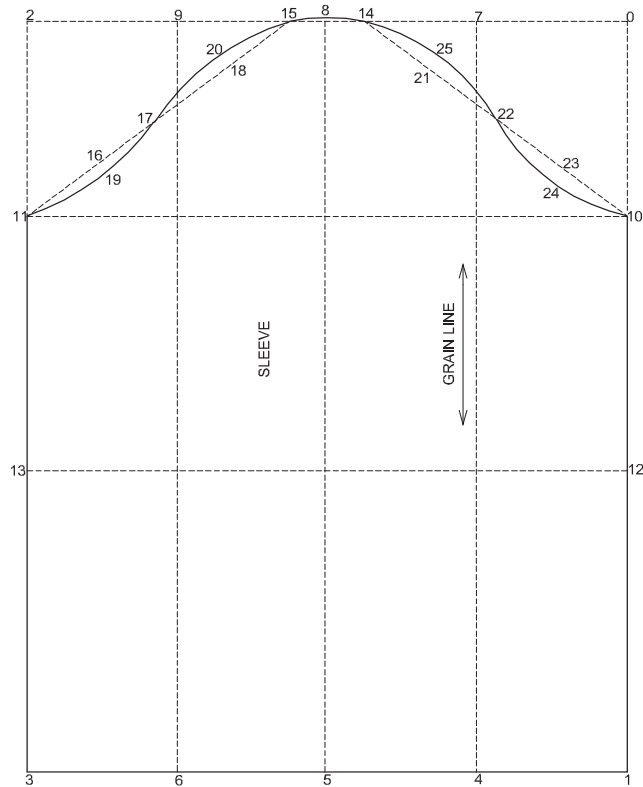
Square down from 31

Join 31 - 24

Square down from 30

Join 32-33

Join 16-34 Shape 34-33



Sleeve

0-1= 31 cm (Length of Arm)

0-2 = 24 cm (Top Arm Width)

0-10= 8 cm (Depth of Crown)

0-12= 18.5 (Elbow Length)

8-14 & 8-15=1.5 cm

16 - 19 = 0.5 cm

18 - 20 = 0.25 cm

23 - 24 = 0.75 cm

21 - 25 = 0.75 cm

Square out horizontally & vertically from 0

Square out from 0 and square up from 2 & mark 3

Divide 1-3 in four equal parts & mark 4, 5, 6.

Square up from 4, 5, 6 and mark 7, 8, 9.

Square out from 10 & mark 11.

Square out from 12 & mark 13.

Join 15-11 & 14-10.

Divide 15-11 in four equal parts & mark 16, 17, 18.

Square down from 16 & mark 19.

Square up from 18 & mark 20.

Divide 14-10 in four equal parts & mark 21, 22, 23.

Square down from 23 & mark 24.

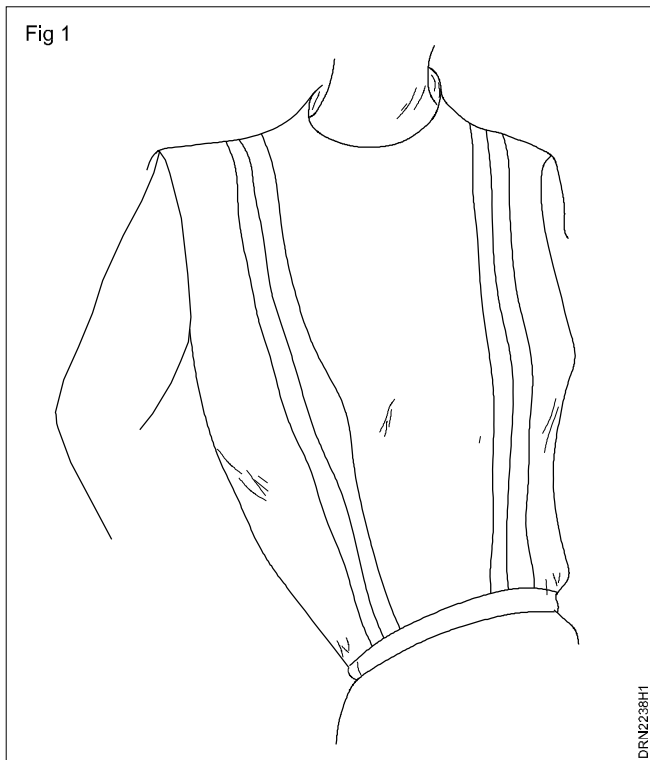
Square up from 21 & mark 25.

Shape 11, 19, 17, 20, 15, 8, 14, 25, 22, 24, 10.

1, 3, 11, 19, 17, 20, 15, 8, 14, 25, 22, 24, 10, 1 is Sleeve Block.

— — — — —

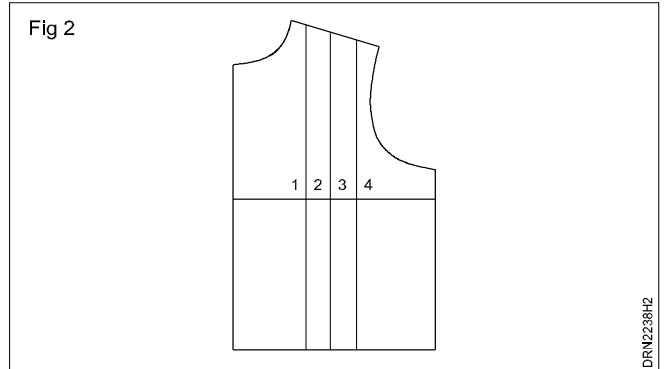
TASK 2: Pleated front bodice (Fig 1)



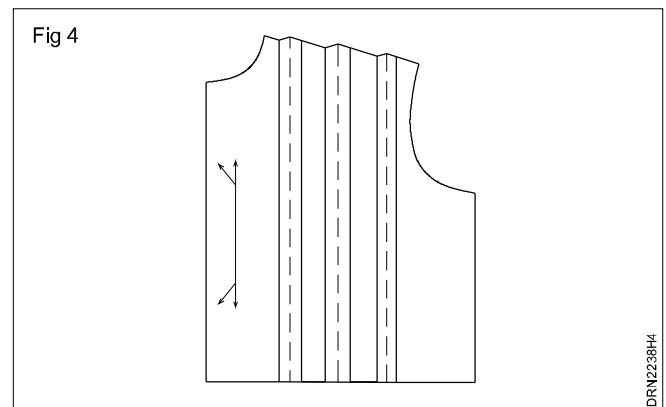
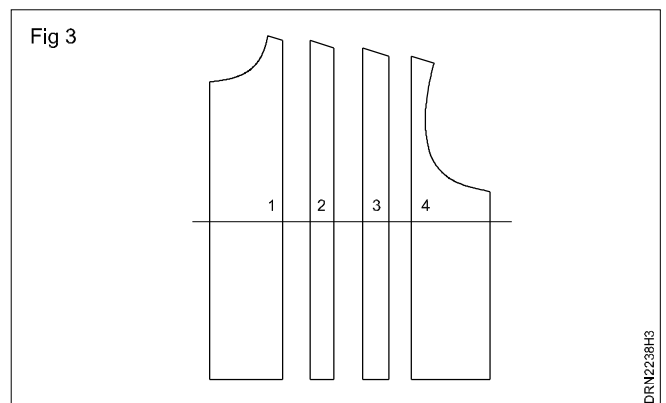
This style suits various figures, except those who are very lean as the vertical pleats give them a slimming effect.

Working method

- 1 Draw a basic blouse block pattern in a paper and do the following alterations for preparing pleated blouse pattern.
- 2 This pattern is easier to achieve with a dartless block.
For a figure with large bust, use of some dart shaping may be needed, use a shoulder dart and distribute the dart allowance evenly between the pleats.
- 3 Outline the block and mark the pleat lines from shoulder to hem. Draw a line across. (Fig 2)
- 4 Cut along the pleat lines. Draw a horizontal line on a paper. Spread the cut down pattern on the paper at equal distances accurately. (Fig 3)



- 5 Redraw the new pattern with the provision left for pleats.
- 6 Fold out the pleats before recutting. This gives the correct shape at the top of the pleats. (Fig 4)



TASK 3: Bodice with yoke (Fig 1)

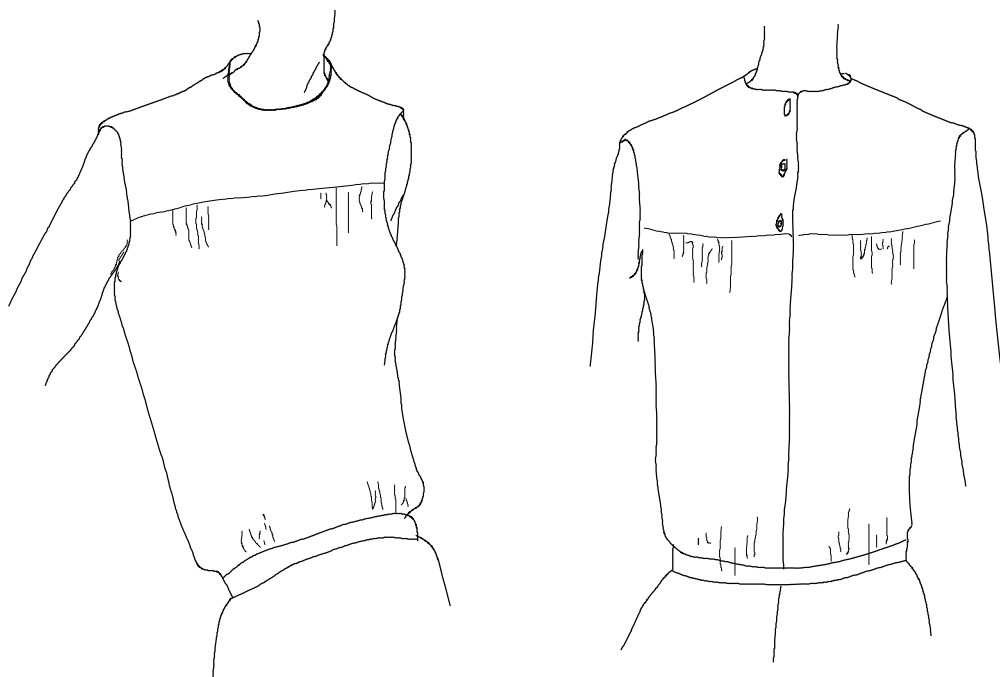
This is a comfortable, easy fit style blouse. The yoke and gather style can either be used only at the front as described or even at the back bodice.

Working method

- 1 Use a bodice block pattern and draw the outline of the front block. Ignore the waist dart. (Fig 2)
- 2 Mark the yoke line across the bodice and put in balance marks.

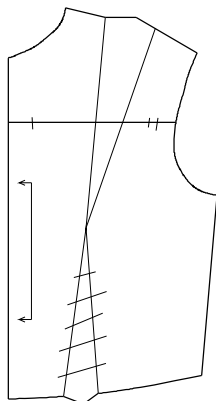
- 3 Cut away the horizontal yoke line and close the remaining dart marks at (Fig 3) soften the angle made by removing the dart.
- 4 Ignore the lower part of the shoulder dart, this forms fullness for gathering.
- 5 Redraw both the pattern pieces (Fig 4) to see the newly prepared gathered and yoke bodice pattern.

Fig 1



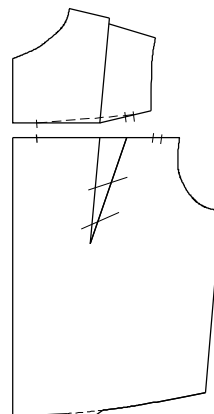
DRN2238.J1

Fig 2



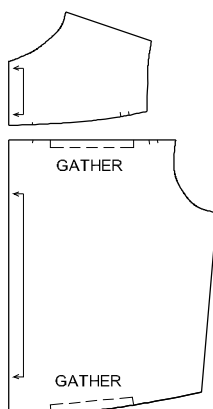
DRN2238.J2

Fig 3



DRN2238.J3

Fig 4



DRN2238.J4

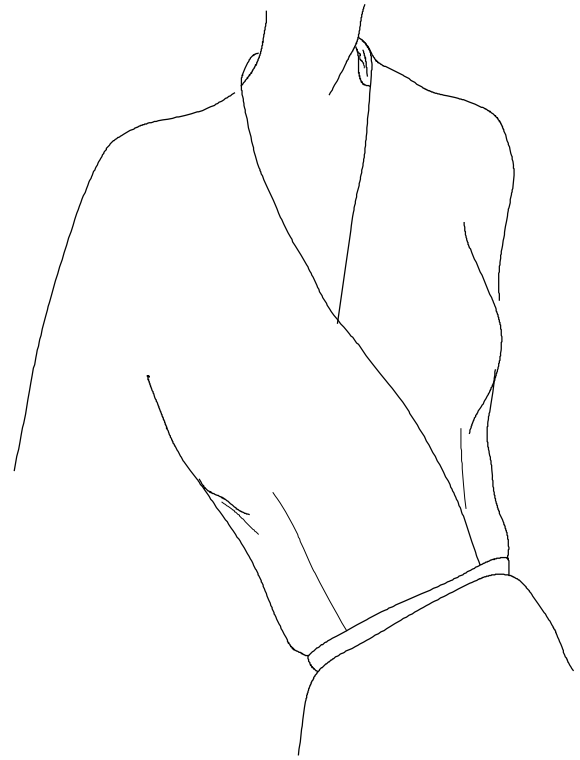
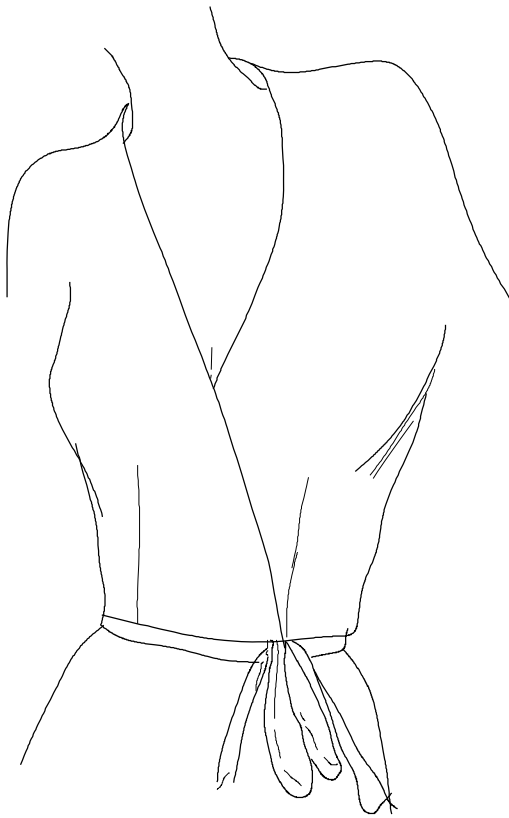
TASK 4: Crossover bodice (Fig 1)

This style emphasizes the ratio between bust and waist. This was very commonly used as casual wear for the comfort they produce.

Working method

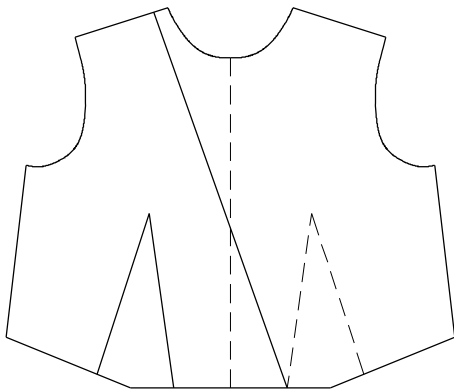
- 1 Draw the outline of the basic bodice block.
- 2 The crossover is usually produced from the right shoulder point to the left waist dartline. Draw the style line by lowering the neckline to the waist dart. (Fig 2)
- 3 Cut away on this line and mark in two lines from the bust point to the new neckline, one above and one below the bust. (Fig 3)

Fig 1



DRN2238M1

Fig 2

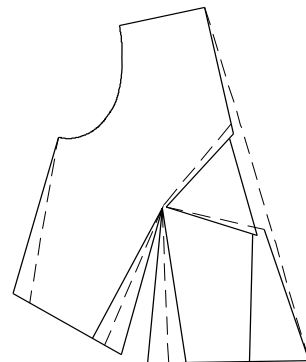


DRN2238M2

5 You now have an enormous underbust/waist dart. Reduce this and shave off at the side seam to correct. (Fig 4)

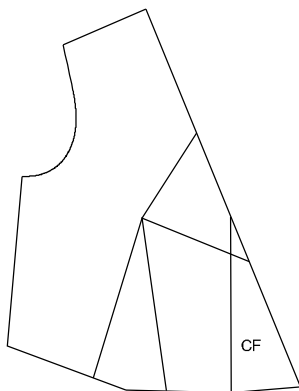
6 Redraw once again, to get the final pattern. (Fig 5)

Fig 4



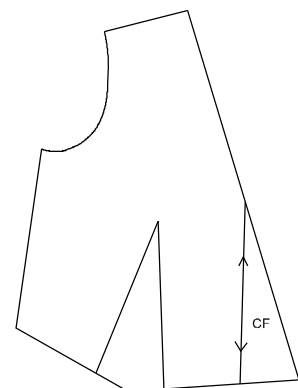
DRN2238M4

Fig 3



DRN2238M3

Fig 5



DRN2238M5

4 Slash open the waist dart to the bust point and fold out by approximately 5mm on each line from the bust to neckline. (Fig 4) This shortens the neck edge and prevents the neckline gaping. (Fig 4)

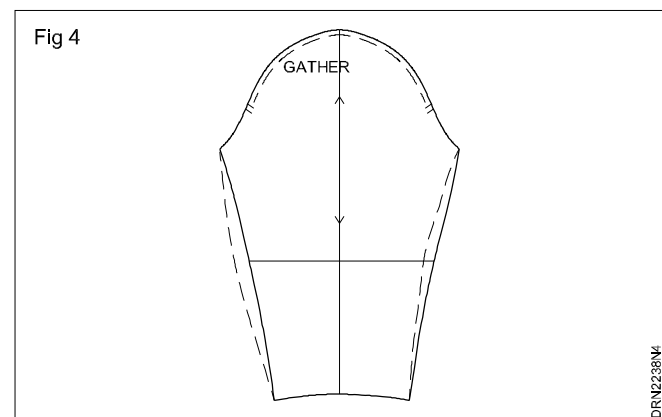
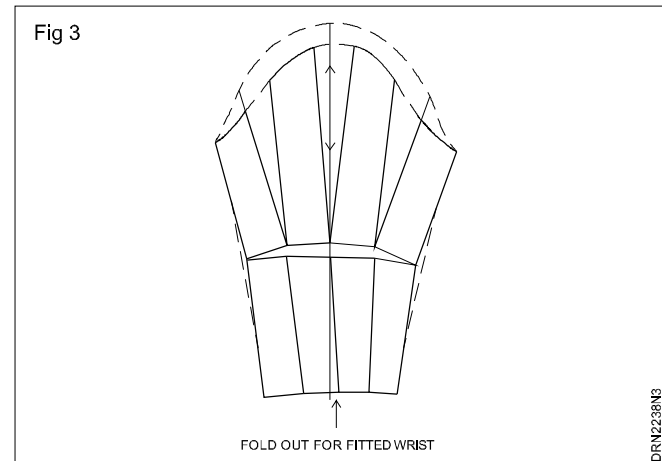
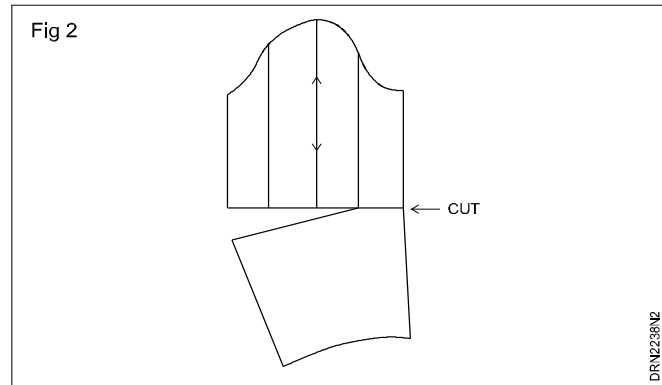
TASK 5: Leg-O-Mutton sleeve (Fig 1)



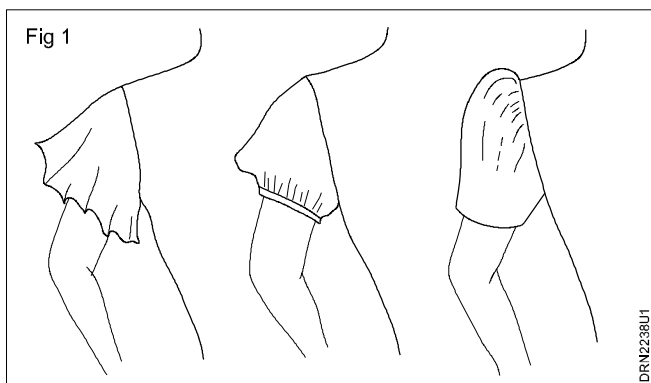
This style is most often used in ladies gown, bridal wear or evening wear.

Working method

- 1 Draw the pattern of the tightly fitted long sleeve pattern and do the following alterations to prepare the Leg O Mutton sleeve pattern.
- 2 Slash right across the elbow line. (Fig 2)
- 3 Slash the upper part of the sleeve into equal parts and spread them for fullness. (Fig 3)
- 4 If a tighter wrist is wanted, mark equal vertical lines at the lower part of the sleeve and fold out on the centre line. (Fig 3)
- 5 Place the upper sleeve against the lower section. (Fig 4)



TASK 6: Bell sleeve or gathered sleeve (Fig 1)



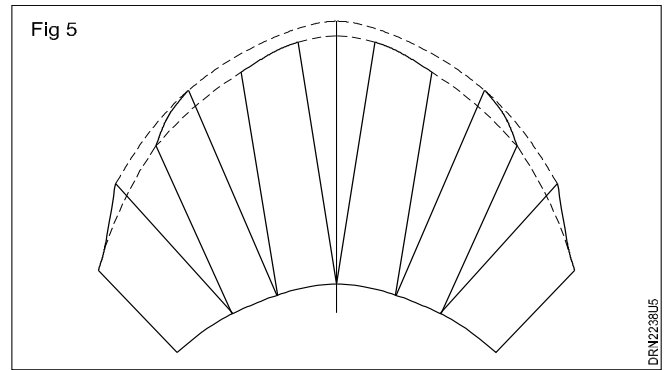
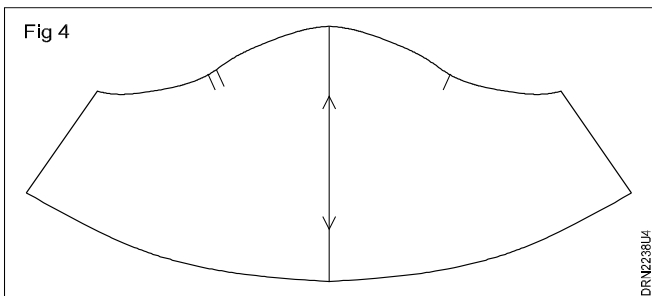
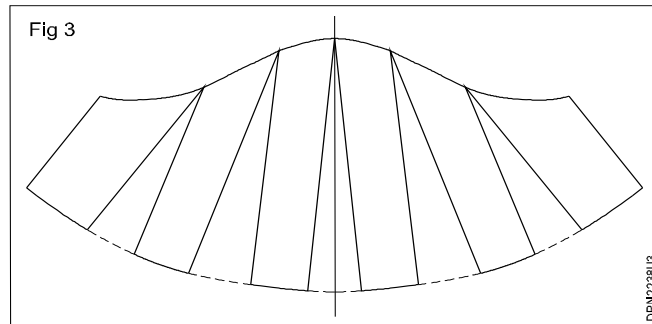
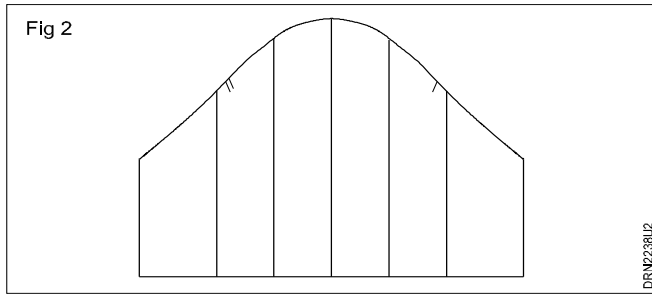
These variety of sleeves are mostly used in Children's garments like frock, tops etc.

Working method - Bell sleeve or gathered bottom sleeve

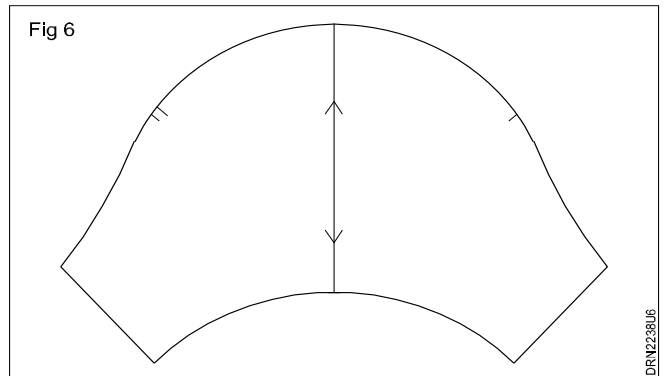
- 1 Outline the sleeve pattern.
- 2 Divide the pattern into equal sections as per the requirement of the flare or gather. (Fig 2)
- 3 Slash at the marked lines from the bottom to the head, but do not cut fully. (Fig 3)
- 4 Spread the pattern at the bottom for fullness. (Fig 3)
- 5 Correct the curve and redraw a new pattern. (Fig 4)

Working method - Sleeve gathered at head

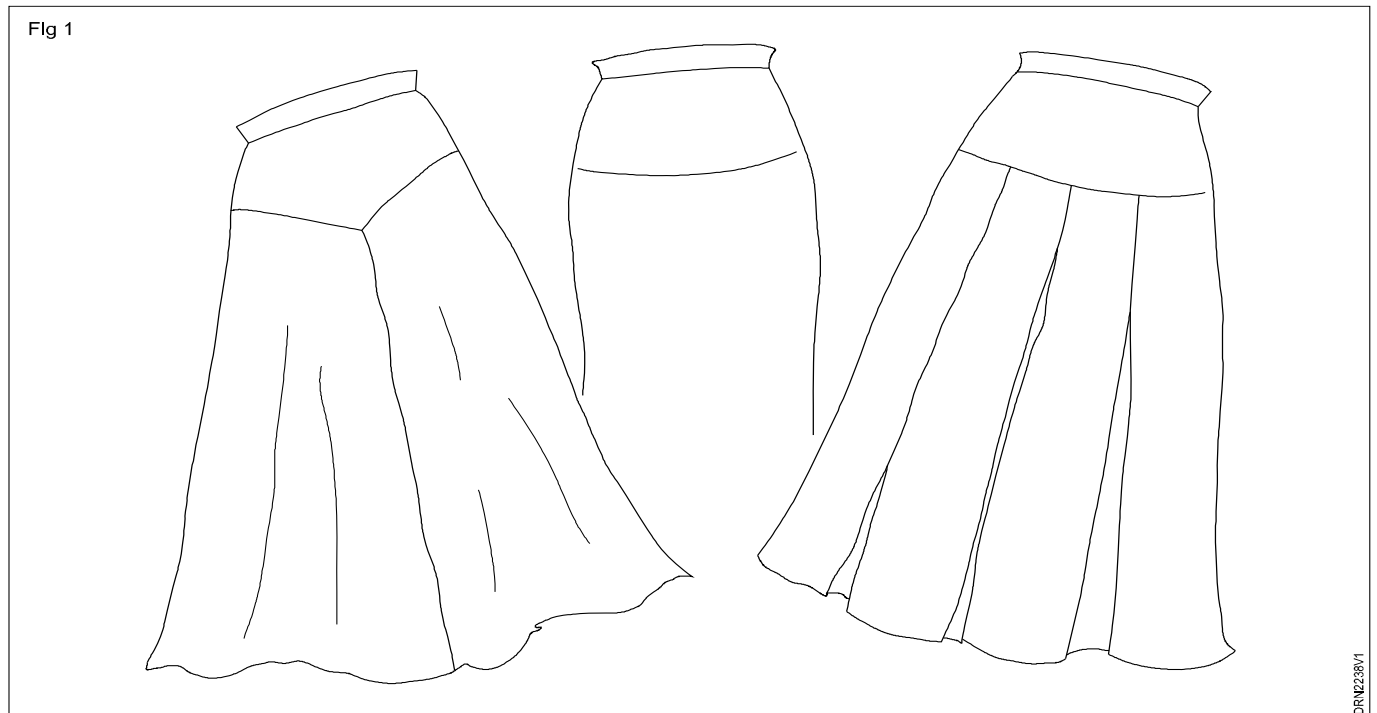
- 1 Prepare the sleeve as for the bell sleeve, cutting down from the sleeve head but not through the bottom. (Fig 5)



2 Spread the slashed parts for fullness and redraw the new pattern for getting the pattern of gathered sleeve. (Fig 6)



TASK 7: Skirt with yoke (Fig 1)



The explained pattern is a common yoke skirt pattern, this can be modified to different styles of yoke skirt as shown in the model.

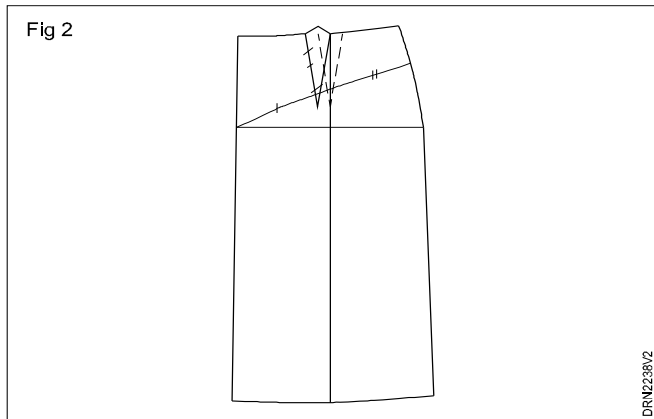
Working method

- 1 Draw the basic skirt block pattern in a paper and do the following alterations for preparing yoke skirt pattern.

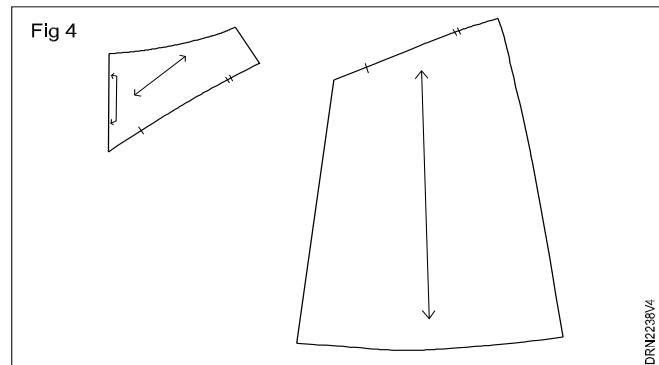
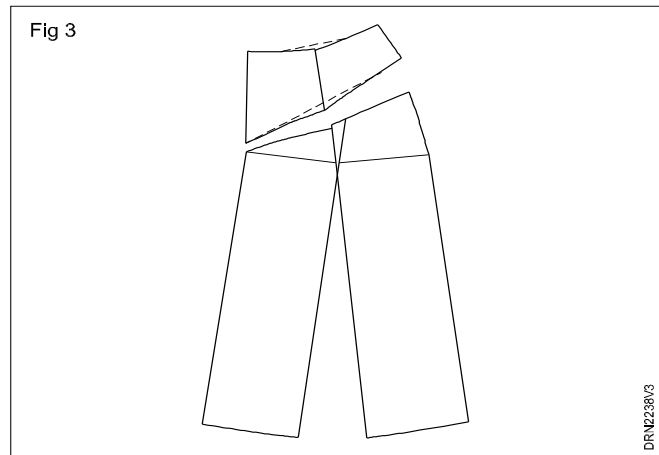


Scan the QR code to view the video for this exercise

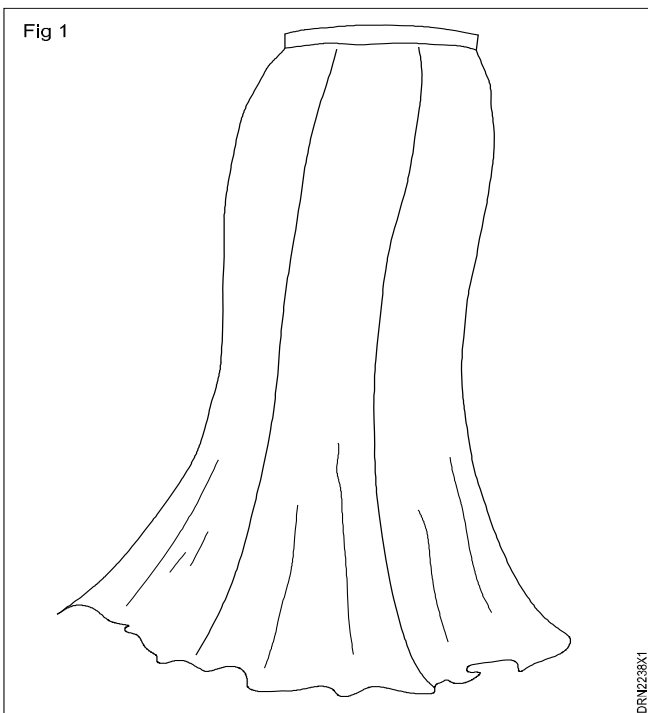
- 2 Mark the required or measured size of yoke points on the drawn pattern. (Fig 2)



- 3 Divide in half at hip and hem, draw a vertical line through the marks to the waist and move the dart onto the line. (Fig 2)
- 4 Slash up the line from hem to dart point. Join the yoke pieces (two) to one (i.e) fold out the dart. The line from the dart to the skirt bottom the width of the skirt bottom. (Fig 3)
- 5 Redraw yoke and skirt to soften the angles from the dart. (Fig 4)



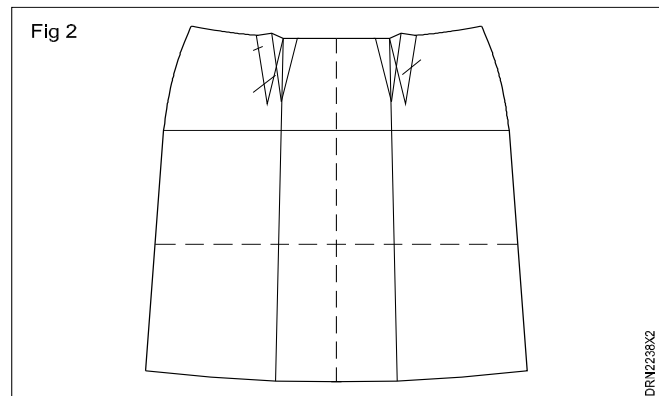
TASK 8: Six-gore skirt (Fig 1)



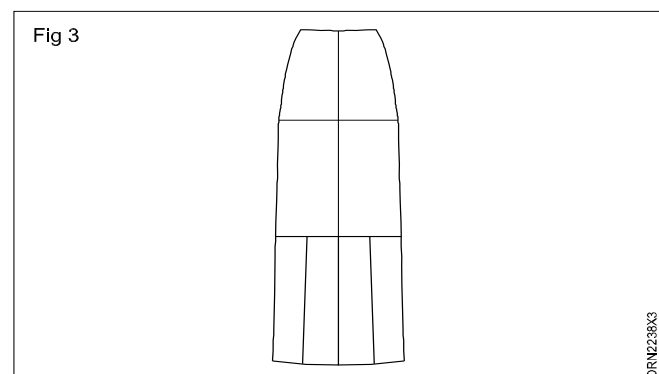
This is an elegant style for semi-evening wear. This will be a simple but beautiful party wear.

Working method

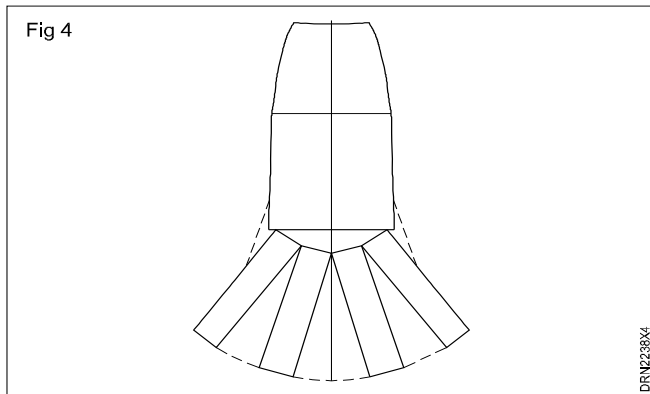
- 1 Draw the basic skirt block pattern in a paper and do the following alterations for preparing six-gore skirt.
- 2 Cut the full front and back blocks into three equal sections at the hip and bottom. Draw 2 vertical lines to the waist. Mark the dart points at the lines drawn. (Fig 2)



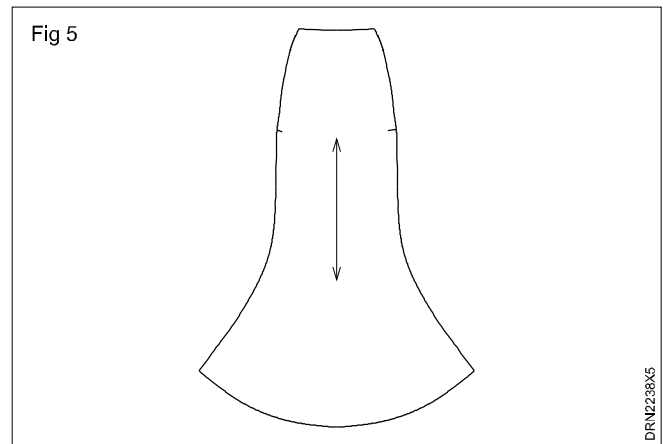
- 3 Mark a horizontal line where the flare will begin. (Fig 2)
- 4 Cut the pattern along the two vertical lines giving shape by cutting along the marked dot points. (Fig 3)



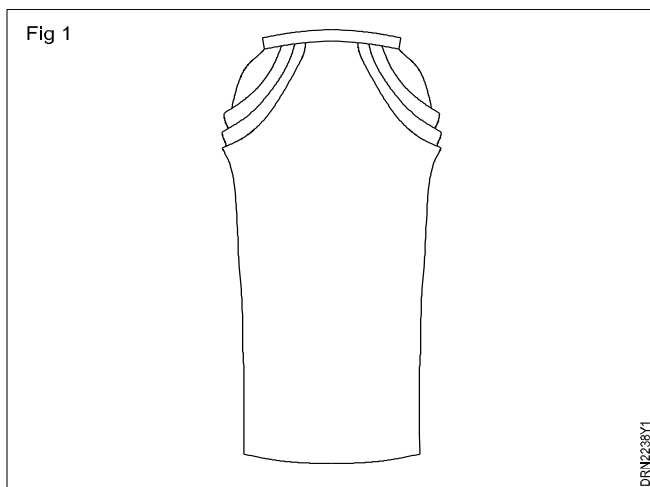
- 5 Cut at the marked flare line, by dividing them into 4 equal parts. Slash and spread (Fig 4).
- 6 Place this spread pieces to match with the upper skirt and draw a new pattern. (Fig 5)



7 Follow these instructions for each panel. Cut six panels of this pattern for six gore skirt.



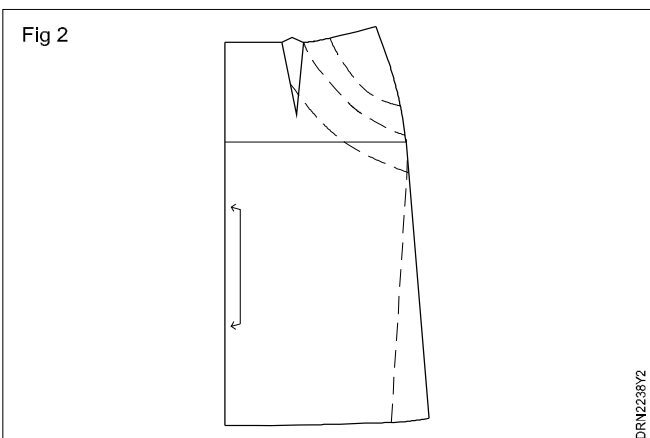
TASK 9: Peg top skirt (Fig 1)



This is a very fitted type of skirt. This peg top may be used at the front skirt with the plain back or with pleated back skirt.

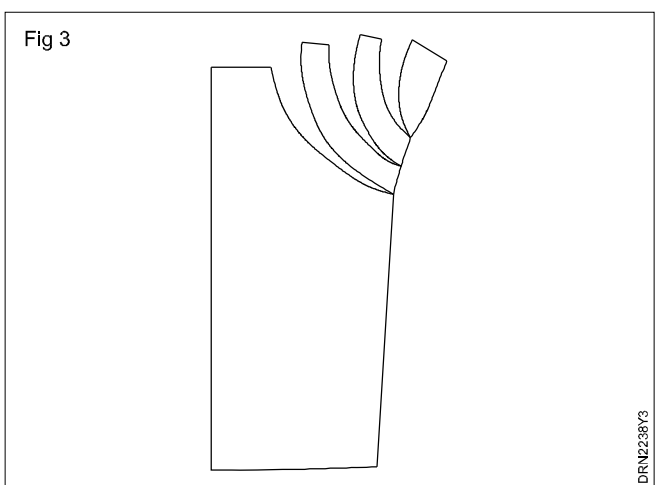
Working method

- 1 Outline the basic skirt block front part and narrow at the side seam from hip to bottom. (Fig 2)

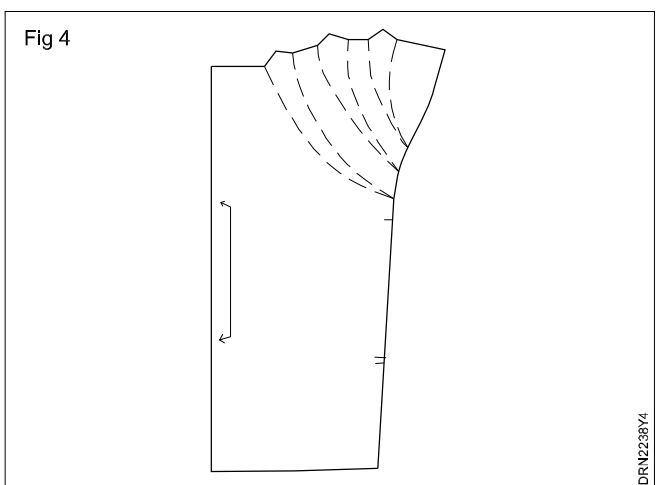


- 2 Draw the curved lines from waist to hip at equal intervals for forming pleats. The curves must be of equal shape.

- 3 Slash and spread the marked curve lines. (Fig 3)



- 4 Redraw the pattern, with the newly created waist measurement for pleats (Fig 4)
- 5 Fold out the pleats while cutting to give shape to waist line.



Practice of developing dress pattern from draping technique: Basic bodies (darts, princess line)

Objectives: At the end of this exercise you shall be able to

- prepare muslin for princess line long dress
- drape the princess line frock
- place on the tracing paper and cut the fabric.

Requirements

Tools/Instruments

- | | | | |
|--------------------|---------|-----------------|----------|
| • Tailor chalk | - 1 No. | • Tracing paper | - 2 Nos. |
| • Measuring tape | - 1 No. | • Dress form | - 1 No. |
| • Scissors - 25 cm | - 1 No. | • Iron box | - 1 No. |
| • Pencil HB | - 1 No. | • Iron table | - 1 No. |
| • Tailor chalk | - 1 No. | • Muslin cloth | - 1 No. |
| • Measuring tape | - 1 No. | • Paper pins | - 1 box |
| • Scissors - 25 cm | - 1 No. | • Tracing paper | - 2 Nos. |
| • Pencil HB | - 1 No. | • Dress form | - 1 No. |

Materials

- | | | | |
|--------------|---------|----------------|---------|
| • Paper pins | - 1 box | • Muslin cloth | - 1 No. |
|--------------|---------|----------------|---------|

PROCEDURE

TASK 1 : Drape darts, princess line

- 1 Set the muslin with horizontal balance line.
- 2 Pin the fold of muslin to the center front and leave 5" of fabric above waist line. (Fig 1)

Fig 1



- 3 Place a temporary holding pin and smooth muslin from center front to princess line. Pin in waist. (Fig 2)

Fig 2



- 4 Trim excess fabric smooth and repin at princess line. (Fig 3)
- 5 Clip the waist right at the princess line and form the flare. Release holding pins at the side. (Fig 4)

Fig 3



Fig 5

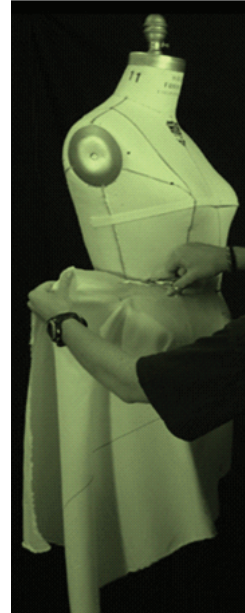


Fig 6



Fig 7



6 Rotate the excess fabric on a counter clockwise direction dropping the fabric down to form the flare. (Fig 4)

Fig 4



- 7 Pin at the waist and trim excess fabric at princess line to side seam. (Fig 5)
- 8 Pin $\frac{1}{4}$ " ease tuck and clip to waist. Repin the side seam.
- 9 Smooth fabric and pin to side seam at bottom seam. (Fig 6)
- 10 Mark dot at waist. (Fig 7)
- 11 Pin the flare right at the base of the form and measure.

12 Rub the side seam and mark right at form base. (Fig 8)

Fig 8



13 Mark Measurement A-B.

14 Trim side seam and mark front panel.

15 Trimmed fold it away from the side seam and pin. (Fig 9)

Fig 9



16 Set the muslin with horizontal balance line pin the center back using pins.

17 Place a pin at side seam.

18 Smooth from center back to princess line.

19 Pin at waist. (Fig 10)

Fig 10



20 Trim excess fabric from center back to princess line.

21 Smooth and repin at waist. Clip to waist at princess line. (Fig 11)

Fig 11



- 22 Release holiday pins rotate the excess fabric form the flare.
- 23 Measure flare right and adjust the fold from the front drape.
- 24 The fabric lift higher at the waist to make the flare smaller, lower to make the flare large. (Fig 12)

Fig 12



- 25 Pin and Trim excess fabric from princess line to side seam.
- 26 Pin a 1/4" ease tuck and clip to waist. (Fig 13)

Fig 13



- 27 Repin side seam and smooth fabric down. Pin the fabric at the base of the form. (Fig 14)
- 28 Mark center back and dot at waist. Mark waist at side seam. (Fig 15)

Fig 14



Fig 15



- 29 Pencil rub at side seam and croom mark at side. Mark A-B measurement straight out from their mark and trim side seam. (Fig 16)
- 30 Fold the side seam from side waist to side flare measurement and gease. Pin front to back at waist. Do not pin to form. (Fig 17)
- 31 Pin at flare base. Continue to pin up entire side seam. (Fig 18)
- 32 Mark the hem at center back and center front. Smooth the side seam and mark hem at side. (Fig 19)
- 33 Smooth the skirt strought down and mark the hem at two or three locations in the back panel. Repeat on front panel and Trim mulin to with in 1-1/2" of marked hem.
- 34 Take the muslin off the form and unpin the side seam. Repin the muslin to pin test the drape. (Fig 20)

Fig 16



Fig 19



Fig 17



Fig 20



Fig 18



35 Back view of the finished drape should hang straight of the center back fold. (Fig 21a & 21b)

Fig 21a



Fig 21b

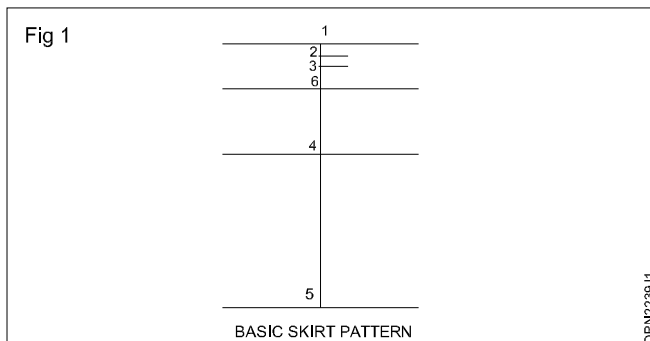


TASK 2 : Place on the tracing paper

- 1 Remove the pins and Iron the muslin using Iron box.
- 2 Place the muslin on the tracing paper.
- 3 Mark the point square out the pattern.

TASK 3 : Cut the pattern of straight skirt

- 1 Draw perpendicular line T. (Fig 1)



- 2 Basic skirt pattern

$$1-2 = \frac{3}{8}\text{inch (1 cm)}$$

$$1-3 = \frac{5}{8}\text{inch (1.5 cm)}$$

$$1-4 = 7 \text{ inches (18 cm) to } 8\frac{3}{4} \text{ inches (22 cm)}$$

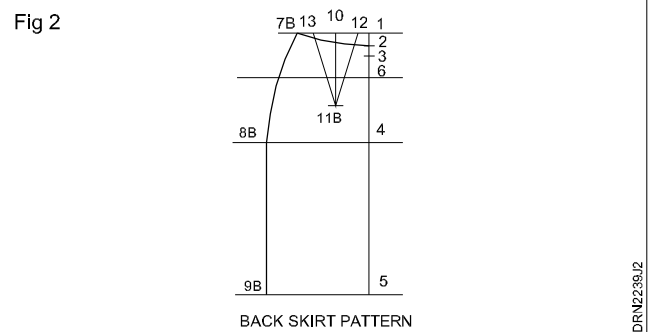
$$1-5 = \text{skirt length}$$

$$1-6 = \text{middle of 1 and 4}$$

Square out 3, 6, 4 and 5 to the right

Square out 2, 6, 4 and 5 to the left

3 Back skirt pattern (Fig 2)



$$1-7B = \frac{1}{4} \text{ waist} + 1.2 \text{ inches (3 cm)}$$

$$4-8B = \frac{1}{4} \text{ second hip} + \frac{3}{8} \text{ inch (1 cm)}$$

$$5-9B = \frac{1}{4} \text{ second hip} + \frac{3}{8} \text{ inch (1 cm)}$$

$$1-10B = \frac{1}{2} \text{ bust point width. Square down 10B}$$

$$10B-11B = 5\frac{1}{2} \text{ inches (14 cm) to 6 inches (15 cm)}$$

$$10B-12B = \frac{5}{8} \text{ inch (1.5 cm)}$$

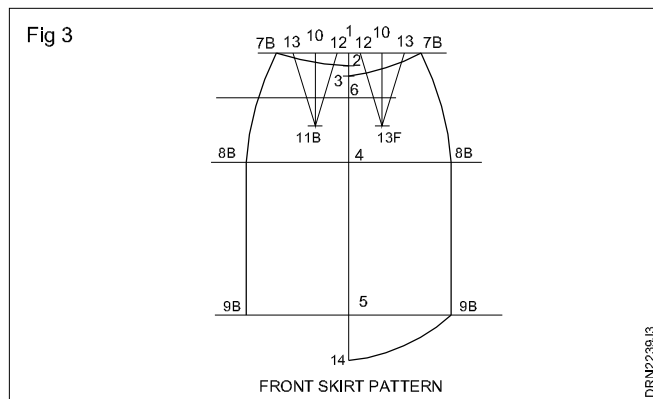
$$10B-13B = \frac{5}{8} \text{ inch (1.5 cm). Connect 12B and 13B to 11B}$$

Fold 12B over 13B and connect 2 to 7B with a hip curve.

Connect 7B to 8B with a hip curve

Connect 8B to 9B with a straight line

Front skirt pattern (Fig 3)



Front Skirt Square down 10B

1-7F = $\frac{1}{4}$ waist + 1 $\frac{1}{2}$ inches (4 cm)

4-8F = $\frac{1}{4}$ second hip + $\frac{5}{8}$ inch (1.5 cm)

5-9F = $\frac{1}{4}$ second hip + $\frac{5}{8}$ inch (1.5 cm)

1-10F = $\frac{1}{2}$ bust point width. Square down 10F

10F-11F = 5 $\frac{1}{4}$ inches (13 cm) to 5 $\frac{1}{2}$ inches (14 cm)

10F-12F = $\frac{3}{4}$ inch (2 cm)

11F - 13F = $\frac{3}{4}$ inch (2 cm). Connect 12F and 13F to 11F

Fold 12F over 13F and connect 3 to 7F with a hip curve

Connect 7F to 8F with a hip curve

Connect 8F to 9F with a straight line

5 to 14 = $\frac{5}{8}$ inch (1.5 cm). Connect 14 to 9F with a hip curve

TASK 4 : Cut the pattern of circular skirt

Taking measurements

1 Step 1

These instructions are to make a $\frac{3}{4}$ circle skirt. The calculations would be different for full half or quarter circle skirts

W = waist

C = circumference

D = diameter

R = radius

QC = quarter circle

$W \times 1.33 = C$ (make a note of this number) then $C \div 3.14159265359 = D$ then $D \div 2 = R$ (make a note of this number) then $W \div 4 = QC$ (a quarter of your desired finished waist measurement).

Creating the pattern

- Step 1 :** Using a long ruler, draw a straight line on your pattern paper. 'Fan' the ruler out, using the start of your first line as a pivot point, and draw several more lines to create the fan shape.
- Step 2 :** Along each of your drawn lines, mark a measurement from the pivot point that is equal to R which you made a note of earlier.
- Step 3 :** Join the dots up with a curved line - this will form the waistline curve. Mark out a section on this curved line that measures the same as your QC number and erase any lines that fall beyond this measurement. What's left will form the basis of your skirt pattern piece and represents one quarter of the finished garment.
- Step 4 :** Measuring from the waistline curve, along each line mark a point equal to the desired finished length of the skirt. For a knee-length skirt, measure from your waist to your knee and use this as your measurement.

Because of the nature of circle skirts and the limitations of the width of fabric available, the maximum length of your skirt will be dictated by the width of the fabric.

- Step 5 :** Join the marked points with a smooth curved line. This is the hemline of your skirt.
- Step 6 :** Trace this pattern piece onto a new sheet of paper and add 1cm ($\frac{3}{8}$ in) seam allowance to the waistline curve and straight sides.
- Step 7 :** If your fabric requires you to hem the skirt, then add a hem allowance to the hemline curve. Because of the nature of the fabric we are using, we chose to leave the hem edge raw, so did not add a hem allowance.

Cutting out

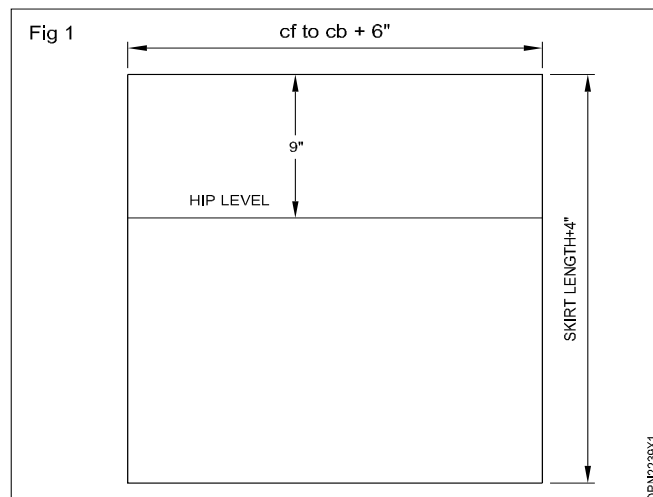
- Step 1 :** Fold the main fabric in half top to bottom, not left to right as you normally would, with the right sides (RS) together and with the selvages aligned.
- Step 2 :** Cut the front section of the skirt in one piece. To do this, place one of the straight edges of the pattern piece along the folded top edge of the fabric. But allow the seam allowance to overhang the folded edge as pictured. This eliminates the centre front (CF) seam.
- Step 3 :** The back section of the skirt is cut in two pieces as there will be a zip in the centre-back (CB) seam. Cut two of the pattern piece, including all seam allowances, from the remainder of the fabric. Make sure you retain a strip of fabric for the waistband in the next step.
- Step 4 :** For the waistband, cut a strip of fabric 7cm ($2\frac{3}{4}$ in) wide and equal to the circumference of your waist line.
- Step 5 :** For the waistband facing, cut a strip of contrast fabric or main fabric the same width as your waistband, and 3cm ($1\frac{1}{4}$ in) longer.

Making the waistband

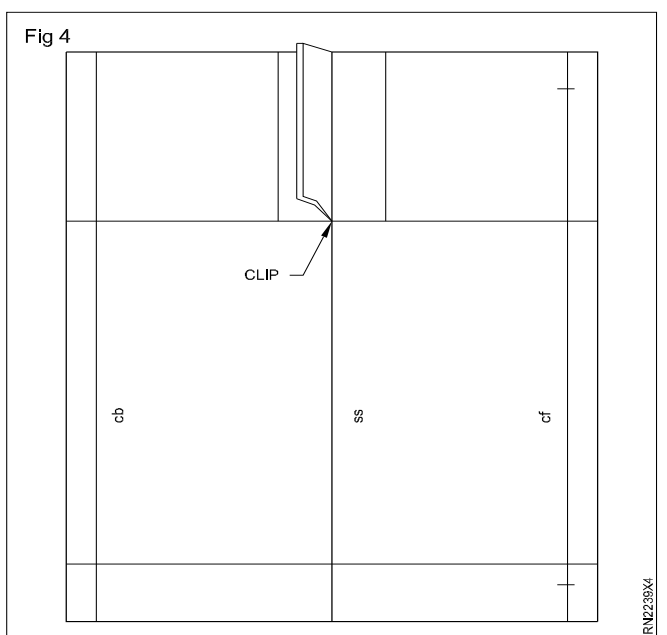
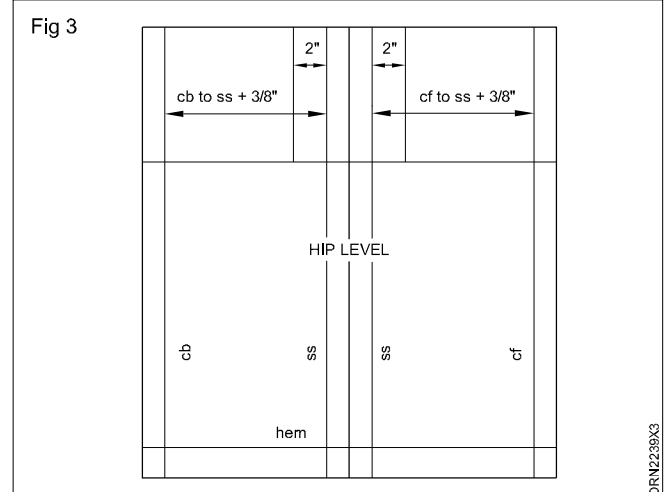
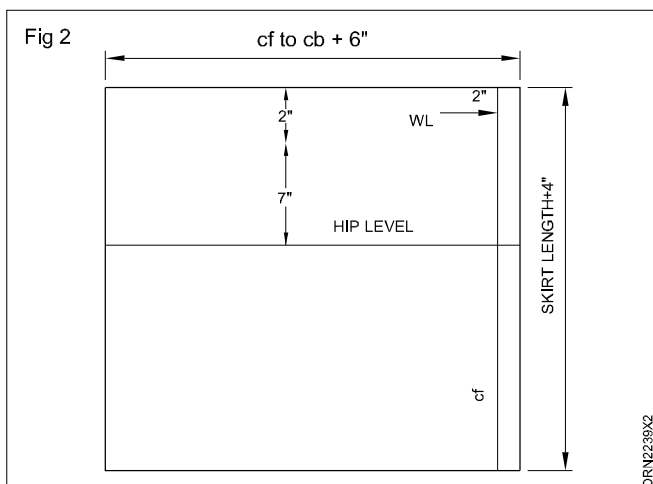
- 1 **Step 1** : Stay stitch the curved edges of the waistband with the 1cm (3/8 in) seam allowance.
- 2 **Step 2** : Sew the back pieces to the front skirt piece with RS together, raw edges aligned and with a 1cm (3/8 in) seam allowance.
- 3 **Step 3** : Press the seams open and flat and then to the side. Note that with faux leather fabric, any pressing must be done through a cloth when pressing the RS of the fabric.
- 4 **Step 4** : From the RS, topstitch the seam allowance down, approx 2mm (1/8 in) from the seam line.
- 5 **Step 5** : With RS together, pin the waistband to the waistline curve. If using faux leather fabric, pin within the seam allowance to avoid leaving visible pin holes on the finished garment, or use fabric clips to hold it in place.
- 6 **Step 6** : Sew the waistband to the waistline curve using a 1cm (3/8 in) seam allowance. Press this seam up and away from the garment and under stitch close to the seam line.

TASK 5 : Prepare the muslin

- 1 Measure the dress form 9 inches down from waistline the fullest part of hip area. Note down the measurement from centre front to side seam and from centre back to side seam at the hip level.
- 2 Tear the muslin fabric in lengthwise grain the designed length of the skirt + 4 inches and in crosswise grain centre front to centre back at the fullest part of the hip area +6". (Fig 1)
- 3 Draw a line 2" from top edge of the muslin to indicate waist line.
- 4 Draw a line 7" down from waistline to make a standard hip line. (Fig 2)
- 5 Mark on the hip line the hip level measurements from center front to side seam plus 3/8 inch for ease.
- 6 Mark a guide line for length wise grain for the side seam of the front skirt.
- 7 At front side seam draw two lengthwise grain line 1 inch apart. These line will be used as front seam allowance and back seam allowance. (Figs 3 & 4)

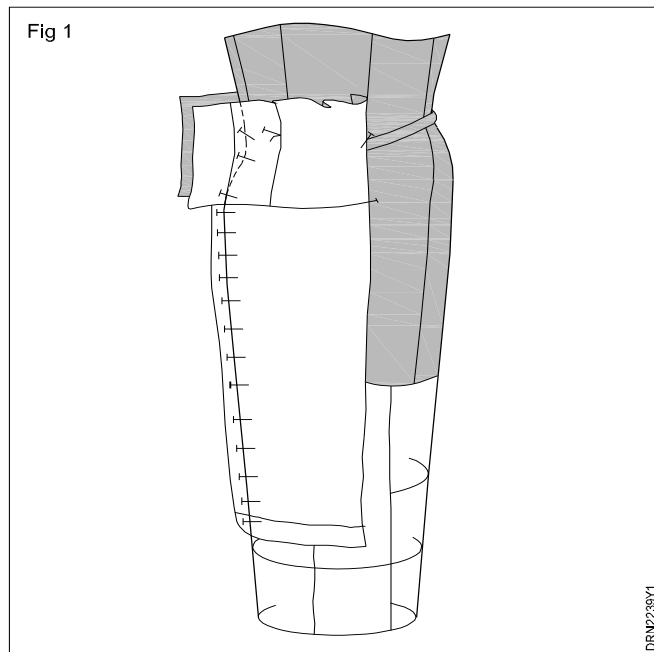


- 3 Draw a line 2" from top edge of the muslin to indicate waist line.
- 4 Draw a line 7" down from waistline to make a standard hip line. (Fig 2)

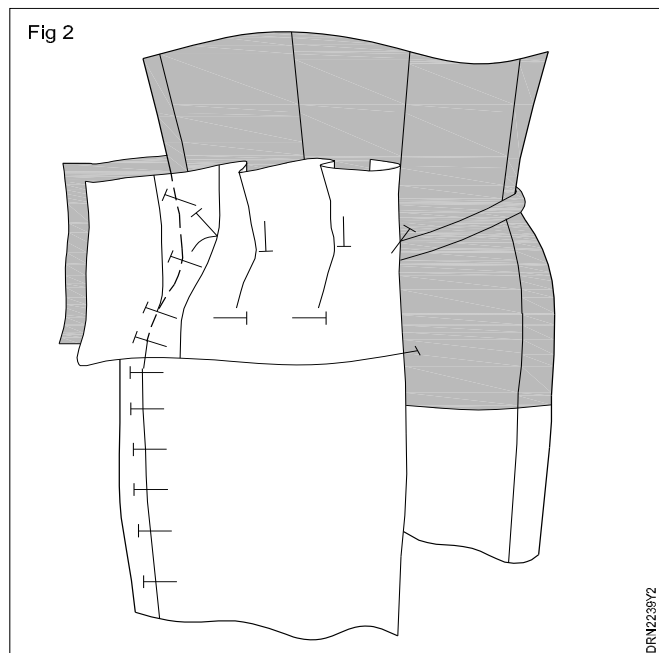


TASK 6 : Drape a skirt

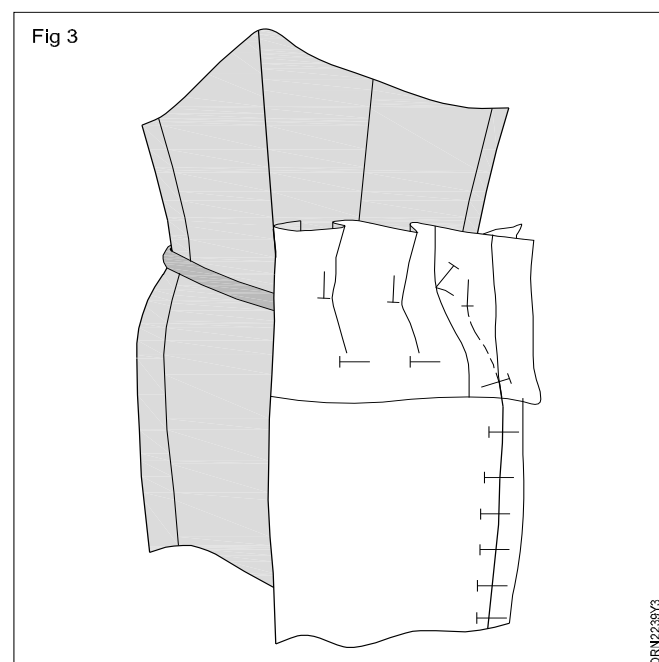
- 1 Fold the 1" allowance at centre front and pin at the waistline.
- 2 Pin at centre front and hip line.
- 3 Drape the muslin on the dress form so that hip line should be straight around the dress form.
- 4 Smooth the length wise grain line near the side seam straight up to the waistline on both front and back.
- 5 Pick up a pinch and pin to the waistline.
- 6 Taking from hip line to waist line pin together the front and back side seam.
- 7 Curve the side seam to 1/2 to 3/4 inch from straight grain line. (Fig 1)



- 8 Mark and pin the position of waist darts and should be in line with the bodice waist darts or matching with the prince line of dress form.
- 9 To keep the grain straight two darts are used in front and two darts are used in back of the basic skirt.
- 10 To drape the darts smooth the muslin along the waist line.
- 11 Adjust and divide the extra fullness into 2 darts between dart point and waist line pinch.
- 12 Pin the darts at the waistline.
- 13 With the help of the pin indicate the level of the vanishing point of each dart (Fig 2)

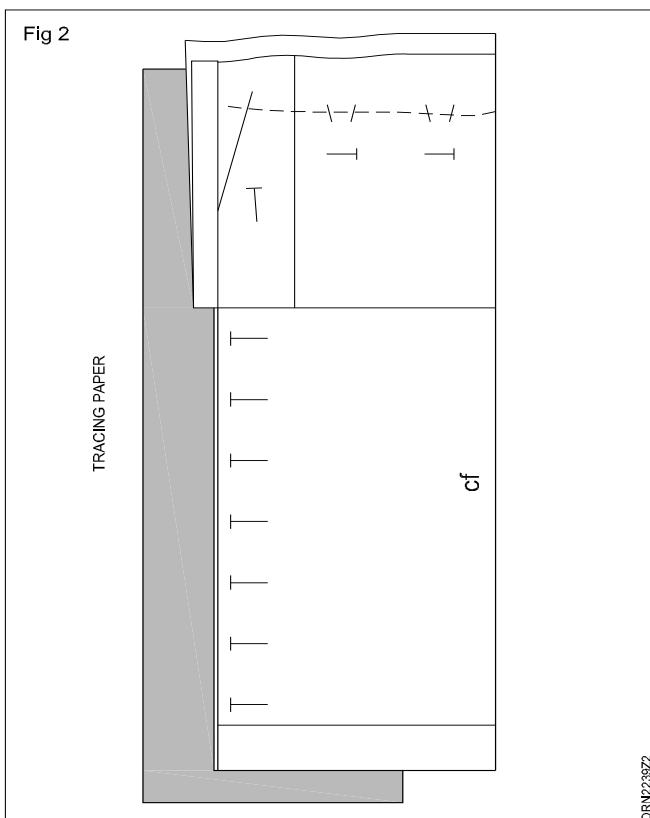
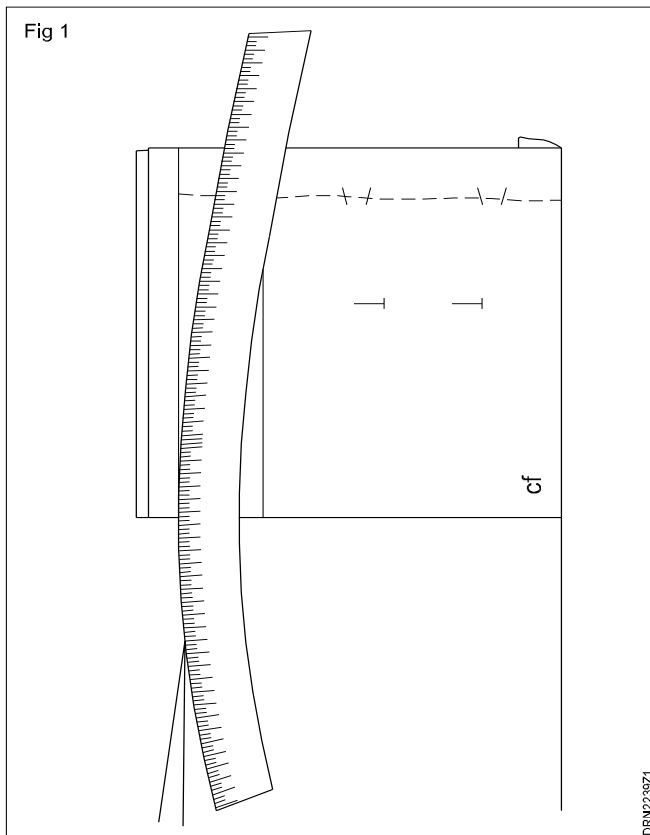


- 14 Mark the position of back darts for the front skirt. Leaving enough ease pinch the excess fabric between the darts. Make 2 pinches in back waistline of the skirt. The dart should end at least 1 inch above hip line. (Fig 3)

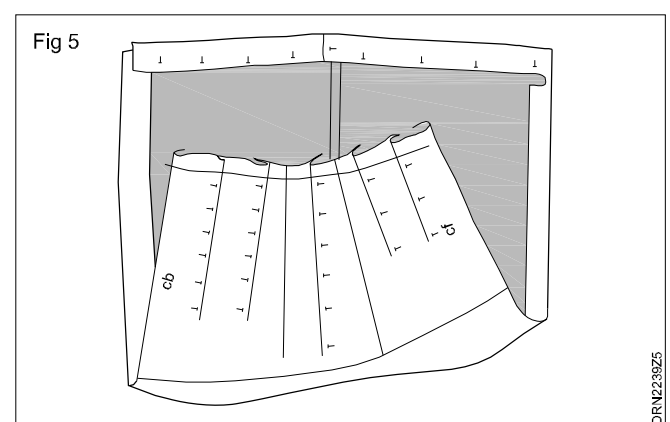
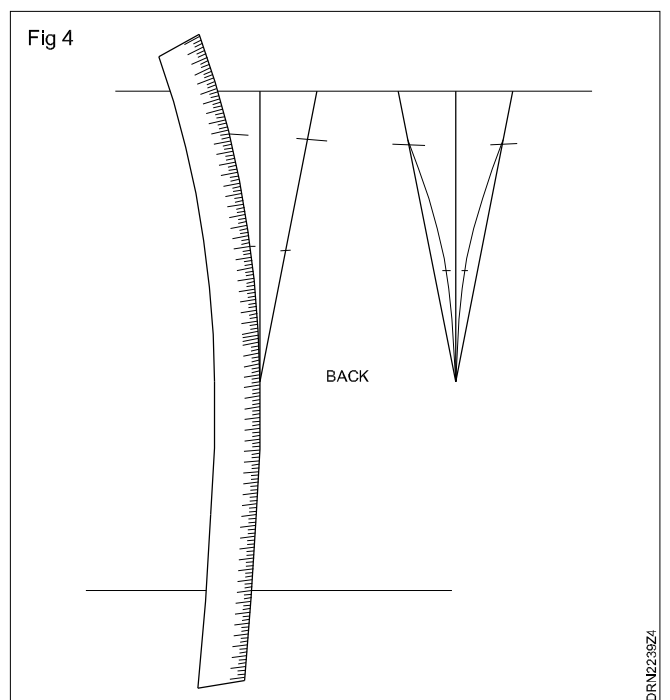
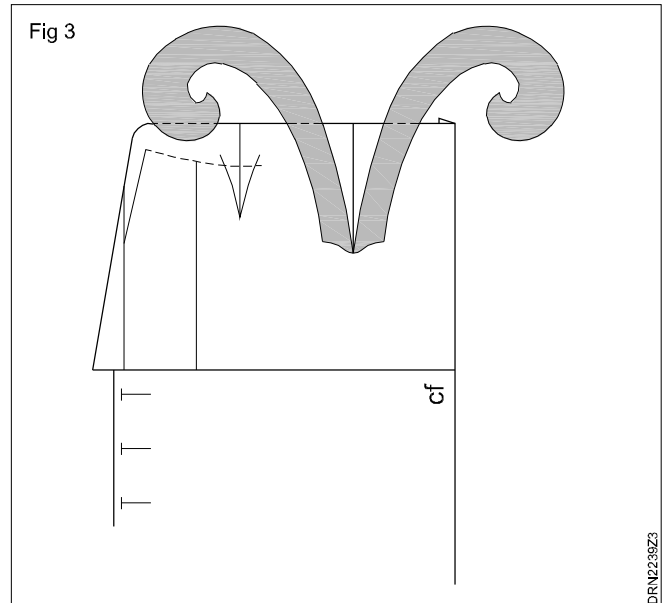


TASK 7 : Mark front and back side

- 1 Mark front and back of the side seam pin from waistline to hipline.
- 2 Tracing with the help of hip curve and keeping skirt selections pinned together true the front side seam from hipline to waistline connecting pin marks (Fig 1).
- 3 Trace the front side seam above hipline at the back. Leaving seam allowance only trim away excess muslin. (Fig 2).
- 4 True the front waist line darts extend a grain line at centre of each dart from the waistline to the level of the dart end. (Fig 3)
- 5 True the back waist line darts extend a grain line at the centre of each dart from waistline to the dart end. With the help of ruler draw a right guide line from dart end to the waist line. Mark 1/8 inch inside each guideline with the help of hip curve connect the waistline, midway make and vanishing point (Fig 4).



- 6 Pin the side seam from hipline to waistline.
- 7 Pin all the darts.
- 8 True the waistline by folding the skirt at dart ends. Flat the waistline and with the help of french curve reshape the waistline.
- 9 Turn up the hem and pin them should be on the straight grain for a basic skirt.(Fig 5)



- 10 Finish the pattern.
- 11 Join the skirt to the bodice.
- 12 Check fit of the pattern.

Manipulation technique of dart

Objectives: At the end of this exercise you shall be able to

- manipulate waist dart to centre front waist dart
- manipulate waist dart to french dart
- manipulate waist-side dart
- manipulate mid shoulder-waist dart
- manipulate waist dart to mid neck dart by pivot method
- manipulate waist dart to mid armhole dart by pivot method
- manipulate shoulder tip & waist dart by pivot method
- manipulate centre front neck & waist dart by pivot method.

Requirements

Tools / Instruments

- Measuring tape - 1 No.
- Scissors - 1 No.
- L-Scale ruler - 1 No.
- Ruler paper for patterns - 1 No.
- Pencil or Pen - 1 No.
- Metal weights - 1 No.
- Tracing wheel - 1 No.
- Awl - as reqd.
- Push pins - as reqd.

- Ladies' bodice block front and back pattern size back pattern size - 12 (M- Small)
- Pattern table - 1 No.
- Pattern shears - 1 No.
- Bell pins and push pins - 1 No.

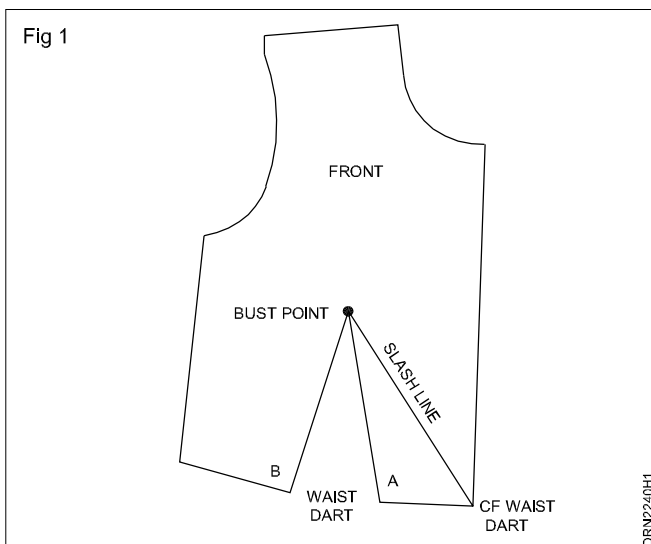
Materials

- Brown papers - as reqd.

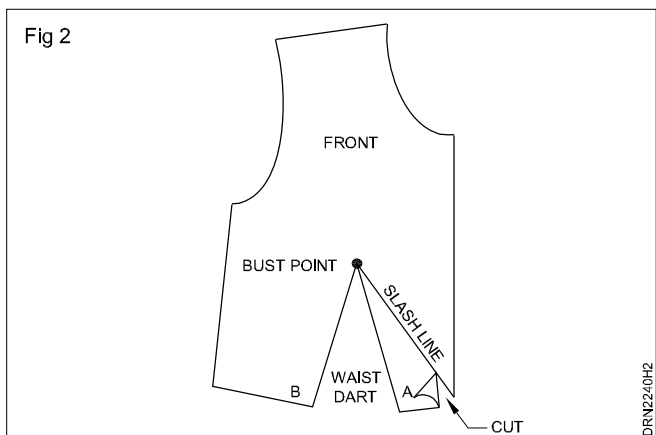
PROCEDURE

TASK 1 : Manipulate waist dart to centre front waist dart

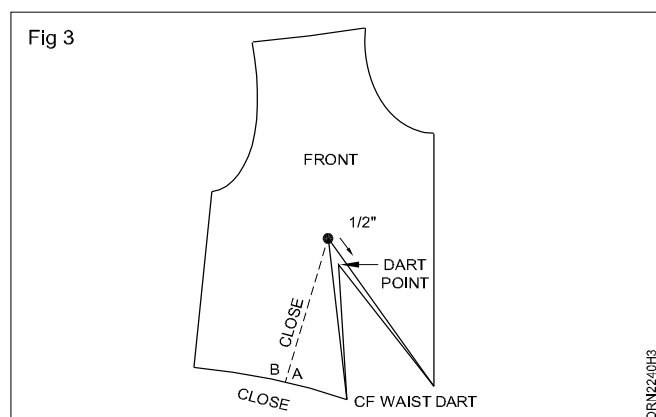
- 1 Trace the charted pattern. Cross dark centre front waist dart. label dart legs A & B.
- 2 Draw slash line from centre front waist to bust point. (Fig 1)



- 3 Slash pattern from centre front waist to, not through, bust point. (Fig 2)
- 4 Close dart legs A&B & Tape the closed line.
- 5 Place pattern on a paper and retrace.
- 6 Down the dart point 1/2 inch from bust point.

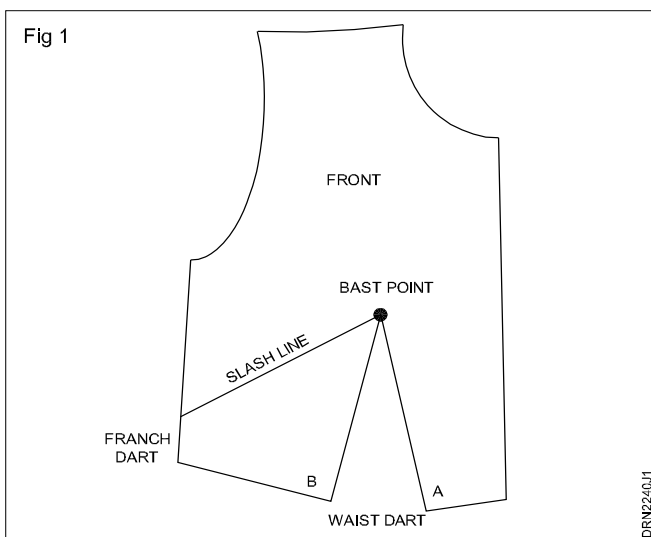


- 7 Draw the new dart legs to the dart point and mark it as centre front waist dart. (Fig 3)

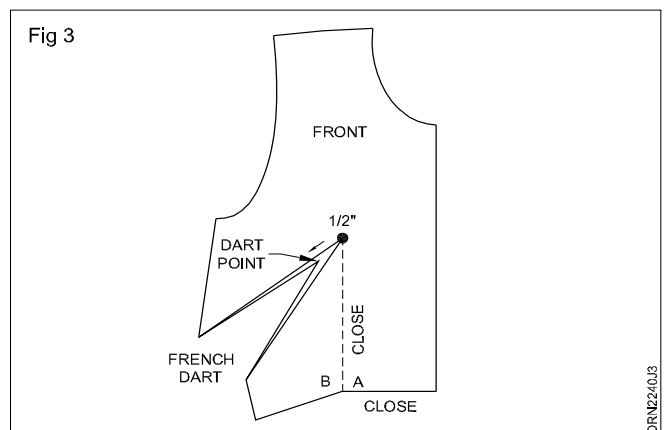
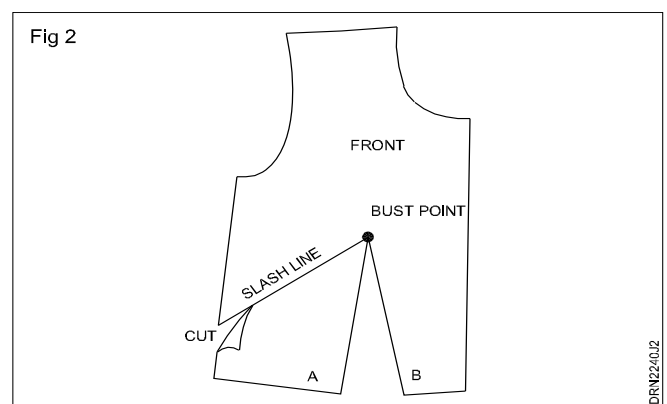


- Fig 4
-
- 1/2"
- 1/4"
- FRONT
- 1/2"
- 1/2"
- BUST POINT
- DART POINT
- 1/2"
- CUT ON FOLD

- 1 Draw a slash line to bust point to form a french dart. (Fig 1)



- 2 Cut slash line to, not through, the bust point. (Fig 2)
- 3 Close the dart legs or waist dart A&B, tape the closed line.
- 4 Retrace and complete the new dart legs to form french dart. (Fig 3)

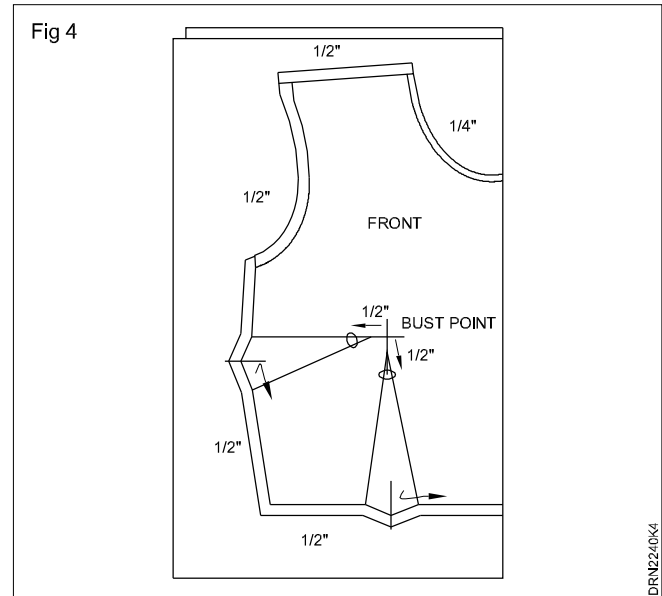
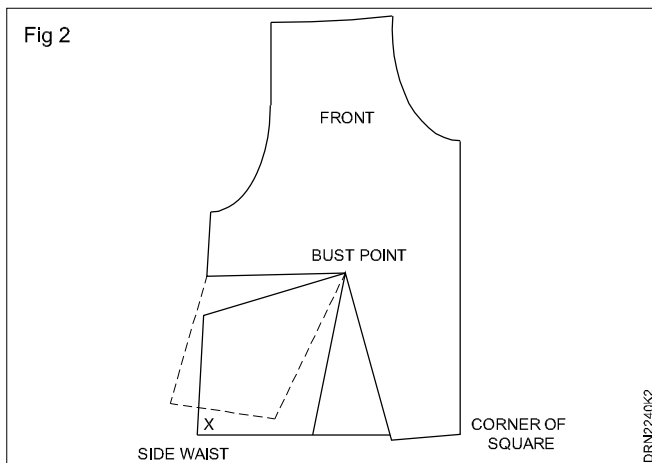
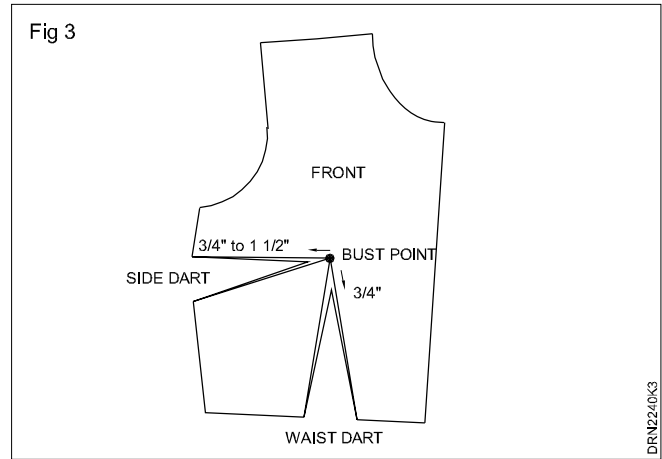
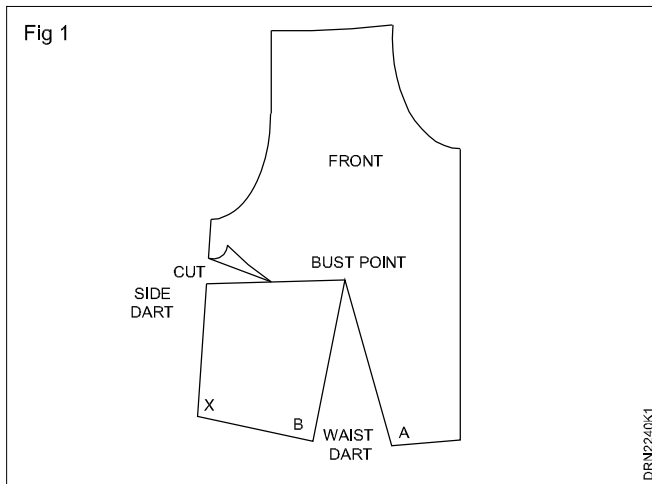


Waist and side dart: (Two-Dart series) (Fig 1)

- 1 Trace front chart pattern. Crossmark side dart location and draw slash line to bust point.
- 2 Label dart legs A and B and side waist.
- 3 Cut slash line to, not through, bust point (hinge). (Fig 2)
- 4 Draw a square line on a paper.
- 5 Place centre front on square line with centre front waist touching corner as shown.

- 6 Close waist dart until point touches square line. (Broken line is original pattern).
- 7 Trace, Mark bust point. (Fig 3)
- 8 Centre the point of waist dart $\frac{3}{4}$ inch from bust and side dart $1\frac{1}{4}$ inches from bust point.
- 9 Redraw the dart legs to dart point.

Test fit: For a full front, cut pattern on fold of muslin. For half of a garment, add 1 inch extension for fold-back at centre front/back.



10 Add seams as shown.

11 Side dart - centre fold lies towards waist.

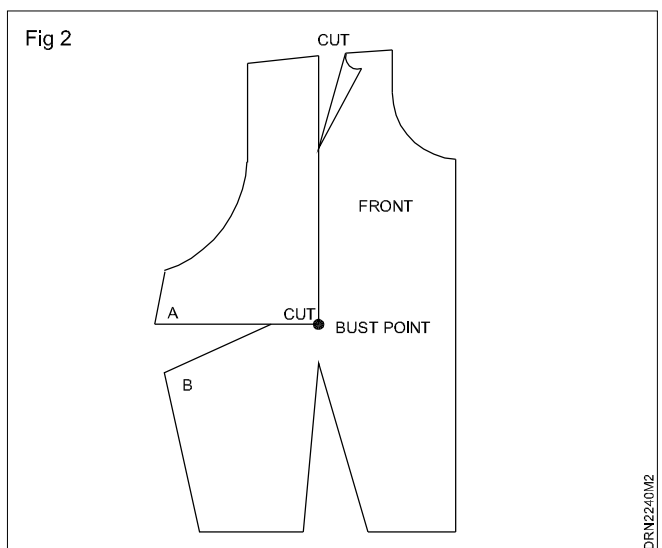
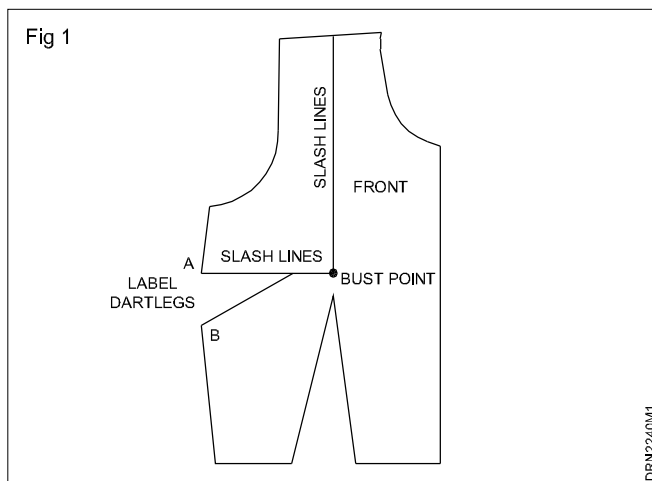
12 Waist dart - centre fold lies towards centre front.

13 Stitch, press and place on form or model for test fit.
(Fig 4)

TASK 4 : Manipulate mid - Shoulder & Waist Dart

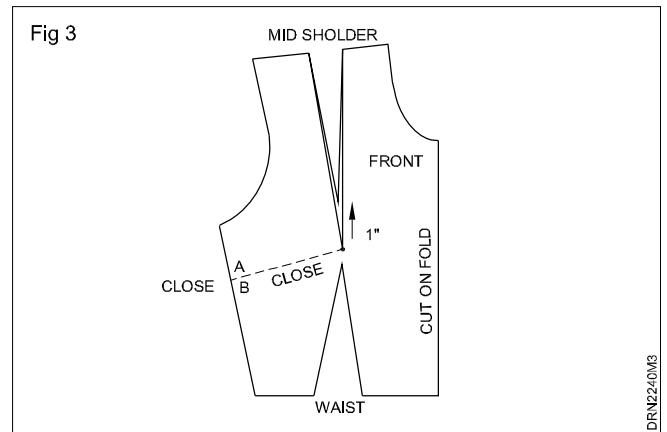
1 Trace pattern, mark bust point and mid-shoulder line.
(Fig 1)

3 Cut slash line to, not through, bust point. (Fig 2)



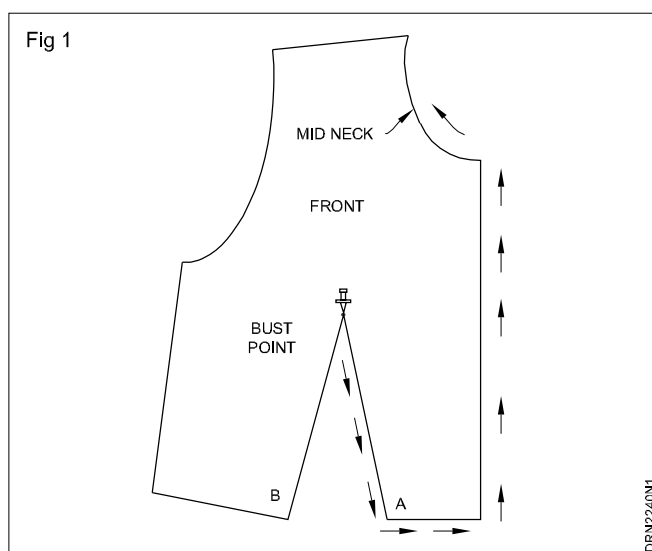
2 Draw slash line to bust point from mid-shoulder and from dart point of side dart to bust point.

- 4 Close dart legs A and B, tape the closed portion accordingly.
- 5 Trace the silhouetting of pattern.
- 6 Mark centre dart point 1 inch from bust point.
- 7 Draw new dart legs to the dart point to form mid-shoulder dart. (Fig 3)

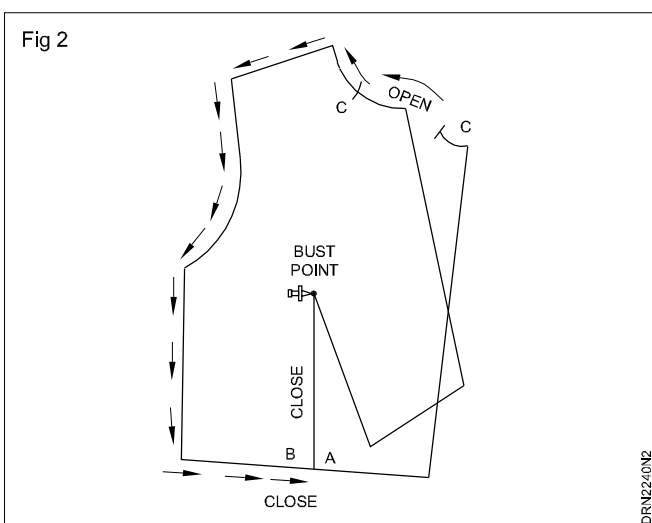


TASK 5 : Manipulate waist dart to mid-neck dart

Mid -Neck Dart: (Single dart series) (Fig 1)

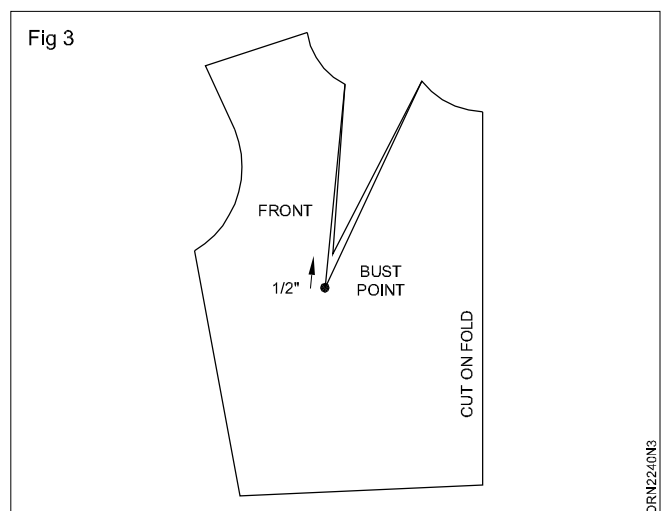


- 1 Place the working pattern on paper with a push ping through bust point. (pivotal point)
- 2 Mark mid-neck location (point c) and dart leg A on a paper. (Fig 2)



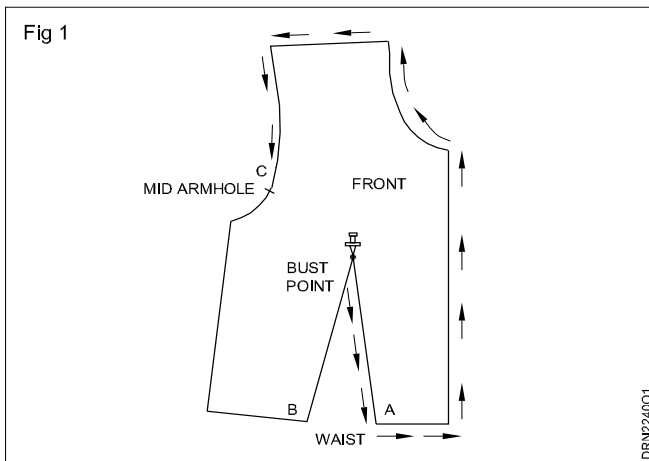
- 3 Trace section of pattern from dart leg A to C, by following till the arrow mark ends from the, bust point.
- 4 Pivot pattern until dart leg B touches A on paper. (close waist darts and open space for mid-neck dart.)
- 5 Trace remaining section of the pattern from dart leg B to point C on pattern by following the arrow marks.

Whenever the pattern is pivoted, it will overlay the previously traced pattern section. This is a natural occurrence. Remember, once a section of the pattern is traced, it is not traced again. (Fig 3)

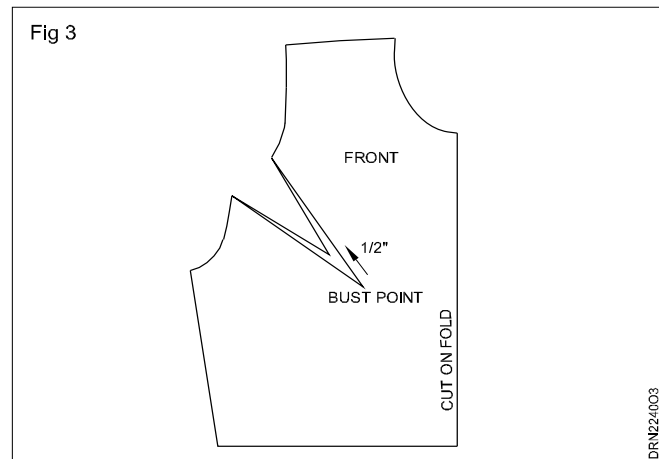
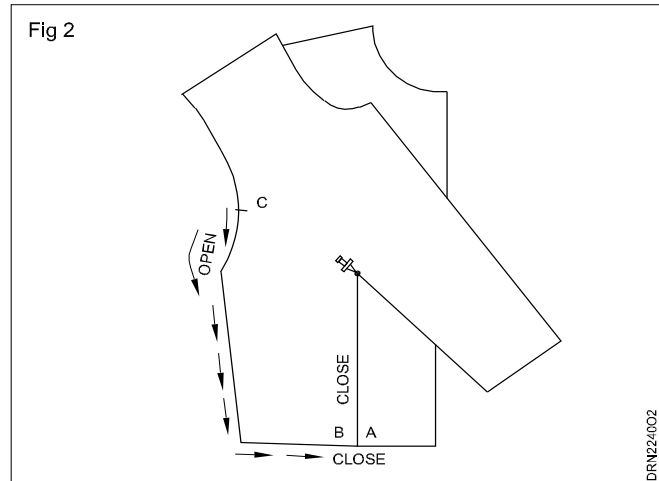


- 6 Remove the working pattern from paper.
- 7 Draw dart legs to bust point.
- 8 Mark centre dart point 1/2 inch from bust point.
- 9 Redraw the dart legs to dart point.
- 10 Cut in muslin for test fit.

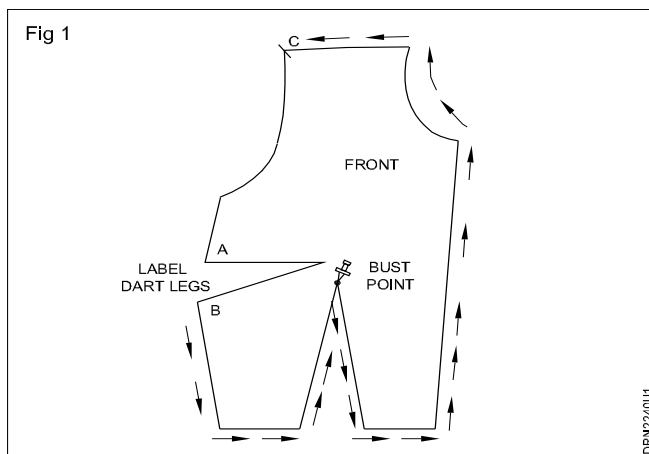
TASK 6 : Manipulate mid-Armhole dart (Fig 1)



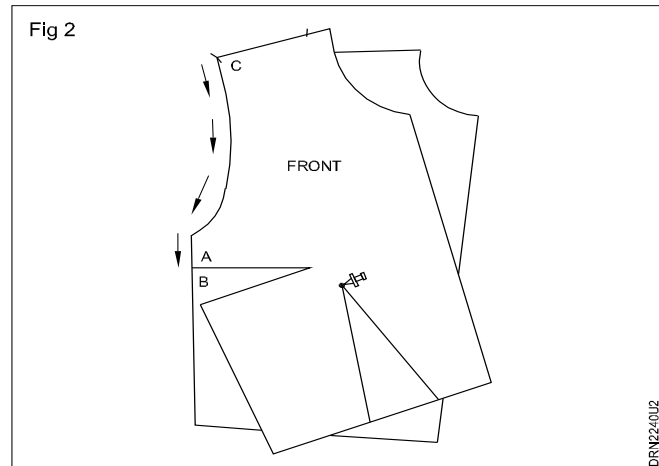
- 1 Mark new dart location and trace the pattern from A to C, by following the arrows.
- 2 Pivot pattern until dart leg B touches point A on paper. (close waist dart and open space for mid-armhole dart.)
- 3 Trace remaining pattern by following through arrow marks.(Fig 1)
- 4 Remove pattern, draw new legs to bust point and centre the dart point 1/2" from past point.(Figs 2 & 3)



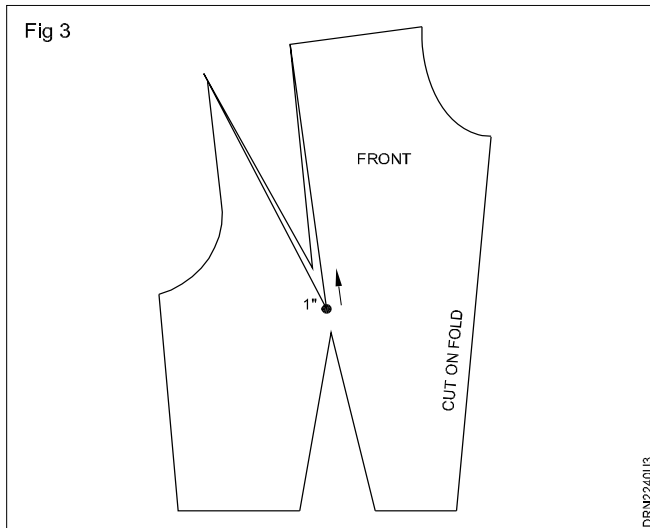
TASK 7 : Manipulate shoulder-tip and waist dart: (Two-dart series) (Fig 1)



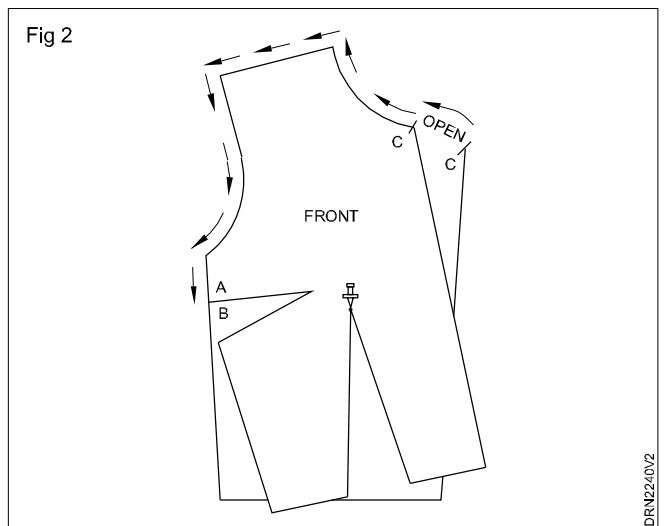
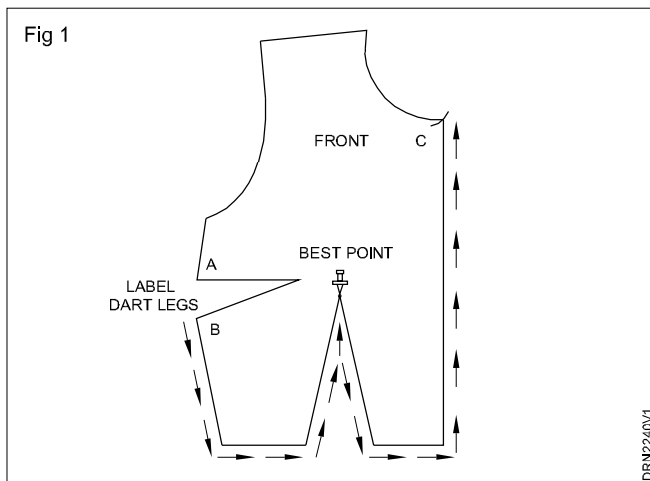
- 1 Place pattern on paper with push pin through the bust point. Mark shoulder tip dart as C.
- 2 Mark at dart leg B and trace to point C. By following till the arrow mark ends. (Fig 2)
- 3 Pivot pattern down ward until dart leg A touches B on paper.



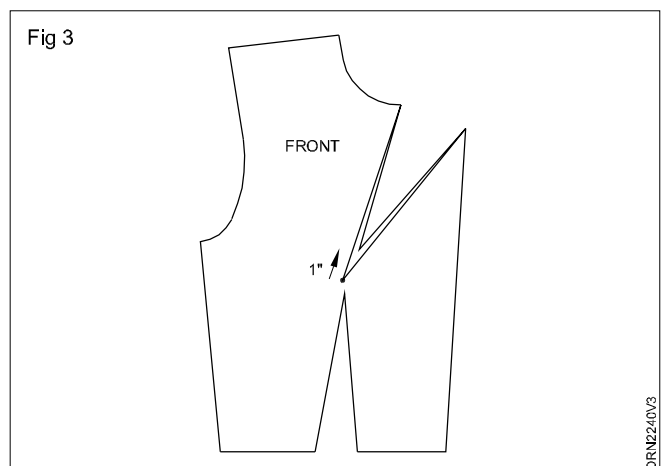
- 4 Mark point C at shoulder tip and trace to dart leg A, by following the arrows.
- 5 Remove pattern, draw dart legs to bust point.
- 6 Mark center dart point 1 inch from the bust and redraw legs to dart point. (Fig 3)



TASK 8 : Manipulate centre front neck and waist dart (Fig 1)



- 1 Place pattern on paper with pushpin through bust point. Mark centre front neck dart as C.
- 2 Mark at dart leg B and trace to point c, or by following the arrow marks
- 3 Pivot pattern downward until dart leg A touches B on the paper.
- 4 Mark point C at neck and trace to dart leg A, by following the arrows. (Fig 2)
- 5 Remove pattern, draw dart legs to bust point.
- 6 Mark center dart point 1 inch from bust and redraw legs to the dart point. (Fig 3)



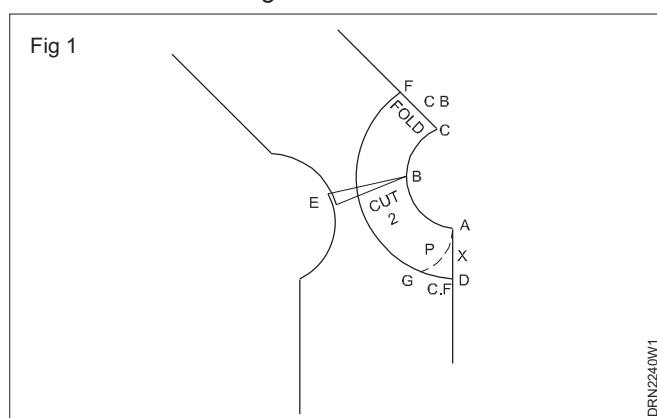
Manipulation technique of collar

Objectives: At the end of this exercise you shall be able to

- prepare pattern for one piece peter pan collar
- prepare pattern for two piece peter pan collar
- prepare pattern for partial roll peter pan collar
- prepare pattern for cape collar
- prepare pattern for scalloped collar
- prepare pattern for puritan collar
- prepare pattern for sailor collar
- prepare pattern for square collar
- prepare pattern for turtle neck collar
- prepare pattern for shawl collar.

TASK 1 : Preparing pattern for one piece peter pan collar

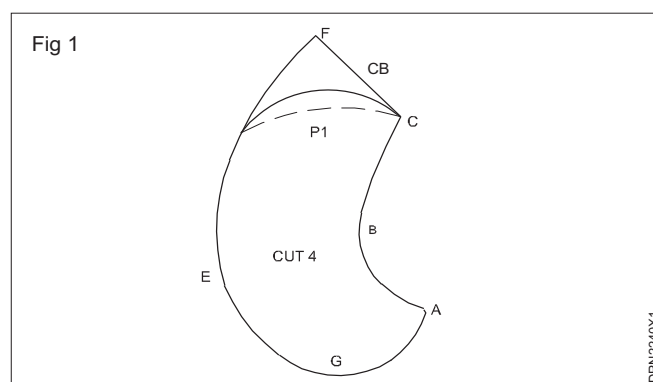
- 1 Keep the front and back bodice pattern together on a paper, with neck points of shoulder lines touching and with the patterns overlapping $\frac{1}{4}$ " near the armhole as illustrated in the Fig 1.



- 2 Trace the outline of the upper part of the bodices.
- 3 Label the front neck line as TS and back neckline as SR.
- 4 Now mark D, E, F, $1\frac{1}{2}$ " to 2" away from T, S and R respectively.
- 5 Join DEF as shown, and round off the collar in the front through P.
- 6 Mark a notch at S, to indicate shoulder point.
- 7 Add Seam allowances all the sides.
- 8 Label the collar as shown and cut out the collar pattern.

TASK 2 : Preparing pattern for two pieces peter pan collar

- 1 To prepare the pattern, take the one piece Peter Pan collar pattern and round off the collar at the back through point P1 as shown in the Fig 1.
- 2 Add Seam allowances all the sides.
- 3 Label the collar as shown.

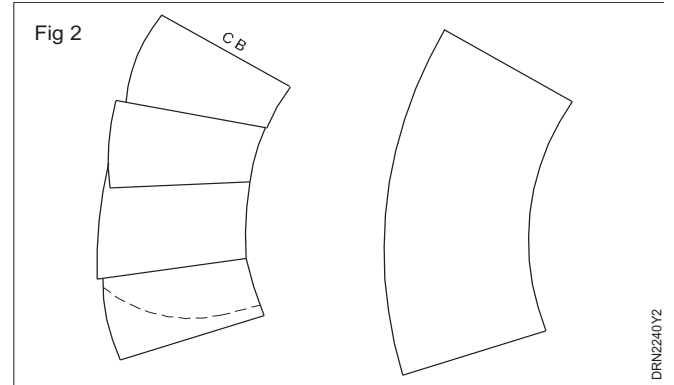
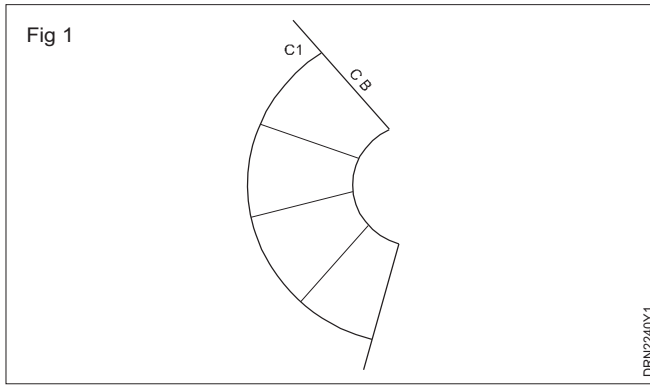


TASK 3 : Prepare pattern for partial roll peter pan collar

- 1 Take the pattern of the One piece peter pan collar and draw three slash lines from outer edge of the collar to neckline as shown in Fig 1.
- 2 Slash along these lines from outer edge and overlap the outer edge above $\frac{1}{4}$ " to $\frac{1}{2}$ " at each slash and pin as shown in Fig 2.
- 3 Reshape the outline.
- 4 Prepare a neat pattern by keeping this on another paper and tracing the outline.

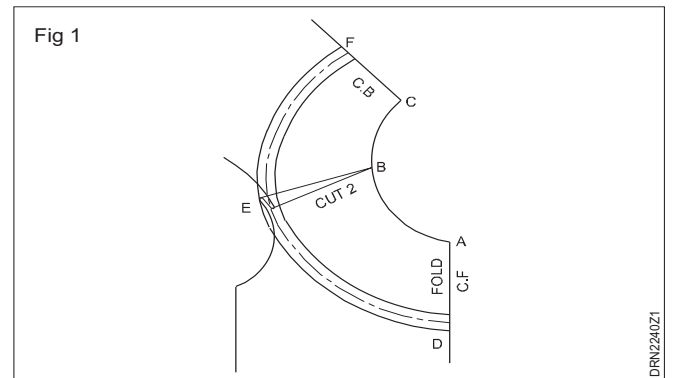


Scan the QR code to view the video for this exercise



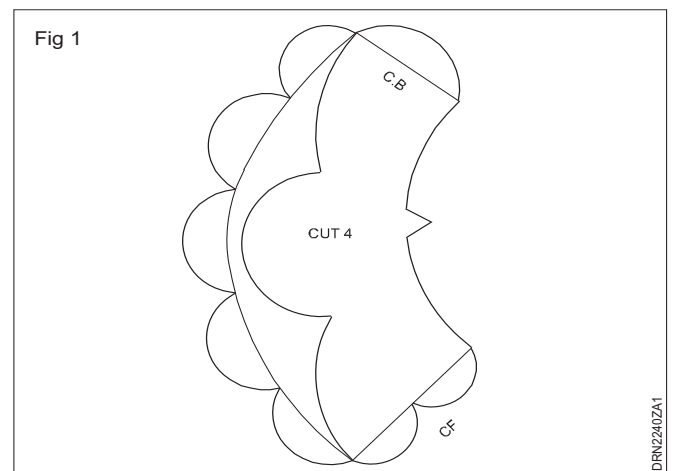
TASK 4 : Prepare pattern for cape collar

- 1 Take the trace neck line area of the front and back patterns are explained earlier and mark points, E, F 4 "to 5" away from T, S, R respectively.
- 2 Connect DEF and cut out the collar pattern. (Fig 1).
- 3 Add Seam allowances all the sides.



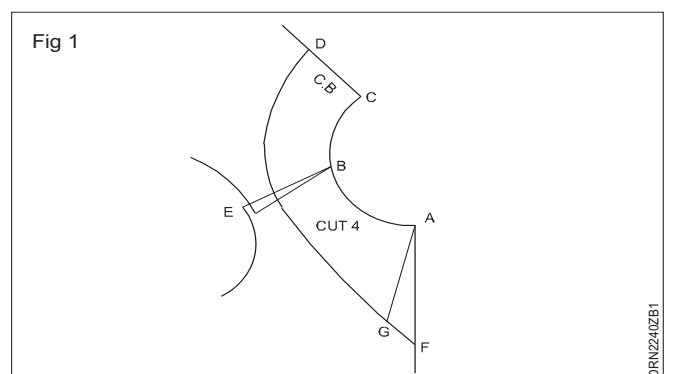
TASK 5 : Prepare pattern for scalloped collar

- 1 Draft collar of 2" to 3" width with seam allowance following the instructions given above for cape collar.
- 2 Modify the shape of the outer edge of collar to scallops as shown in Fig 1.



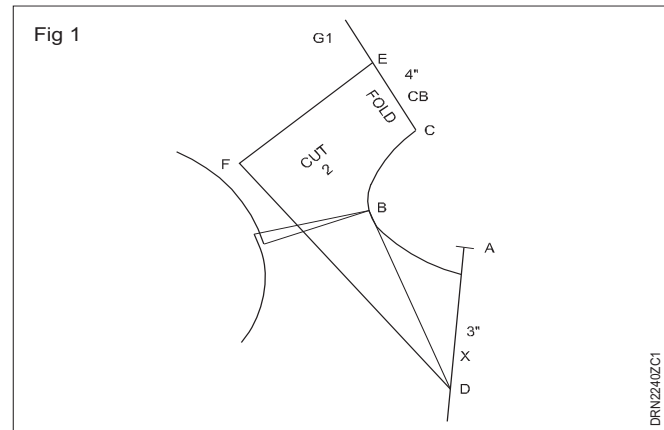
TASK 6 : Prepare pattern for puritan collar

- 1 Trace the back and front neck line area and mark CD = BE = 3"4" and AF = 5" to 6".
- 2 Mark a point 1/2" away from F and connect A as shown in Fig 1.
- 3 Add Seam allowance all the sides.



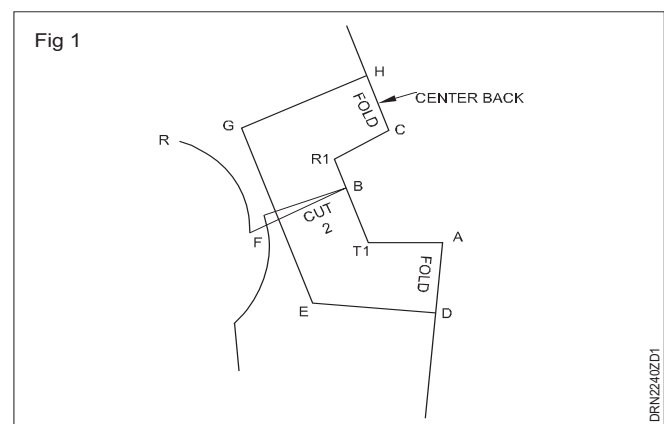
TASK 7 : Prepare pattern for sailor collar

- 1 Modify the neckline to V shape by marking D in the front pattern, 3" to 4" below A and connect BD.
- 2 Now trace on a sheet of paper the neck line area of back and modified front bodice patterns after overlapping the shoulder points near the armhole by 1/2" to 1".
- 3 Draw the style line HED for the outer edge of the collar as shown in the Fig 1.
- 4 Add seam allowance.



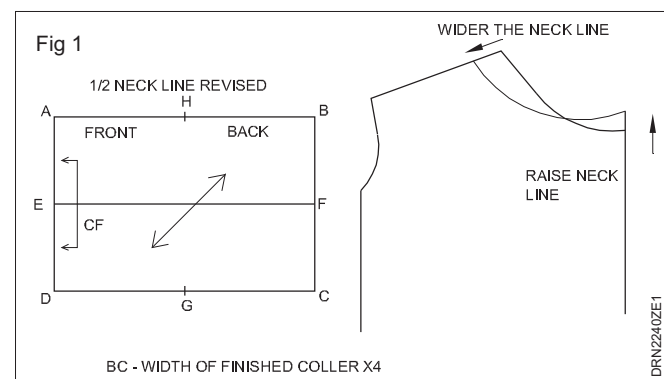
TASK 8 : Prepare pattern for square collar

- 1 Modify the neck lines of the bodice patterns to square shape.
- 2 Trace the neck line area on a paper and draw the style line DEGH for the outer edge of the collar as shown in Fig 1.
- 3 Apply the width of the collar 1 1/2" to 2 1/2".
- 4 Add seam allowance all the sides.



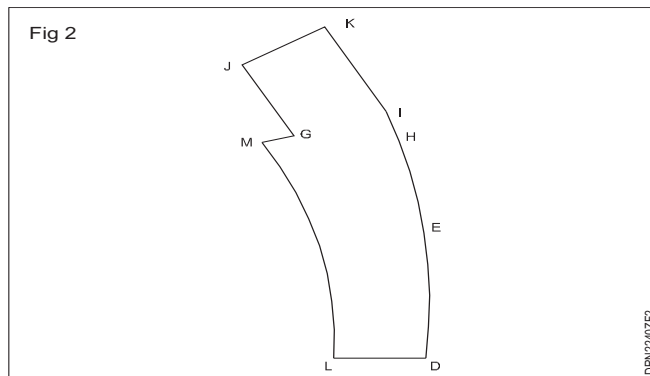
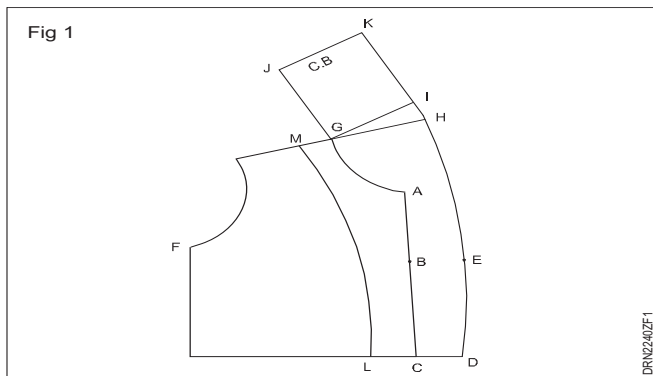
TASK 9 : Prepare pattern for turtle neck collar

- 1 Raise the neck line by 1/4" to 2" at center front or make the neck wider by making the shoulder narrower.
- 2 Draw a rectangle ABCD with AB= 1/2 neck measurement (remember to take neck measurement along the altered neck line) and BC=4 times the width of the finished collar when folded down=4 X 1 1/2 = 6".
- 3 Mark E and F, midpoint of AD and BC, and label line EF as fold line.
- 4 Mark a notch on CD to indicate the shoulder point.
- 5 Label line AD as center front and fold line.
- 6 Mark the grain line as shown in the Fig 1.



TASK 10 : Prepare pattern for shawl collar

- 1 Trace the bodice front on a large sheet of paper. On the center front line AC locate the position of the top button at B.
- 2 Add center front extension of 3/4" by ruling line PF, 3/4" away from OE and parallel to it.
- 3 Extent the shoulder line SA by 3" to 4" to point G.
- 4 Mark D, 1/2" above G. Now draw rectangle ABCD with AB=half the length of the back neck curve.
- 5 Draw line DF to form the collar label. (Fig 1).
- 6 To prepare the collar facing, mark OY=AX=1 1/2" to 2".
- 7 Trace on to another paper the collar facing EHIKJG.



- 8 Finish the Facing pattern as shown in Fig 2.
- 9 Add Seam allowances for both bodice and facing patterns.

Get the work checked by your Instructor.

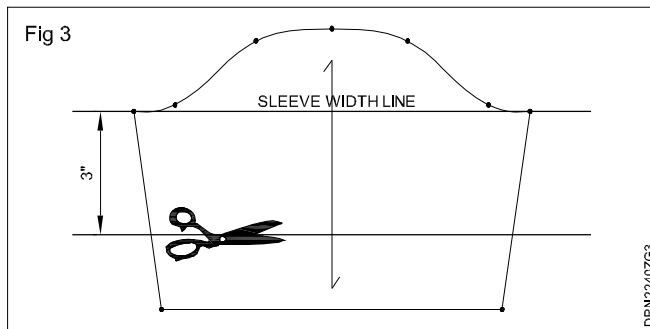
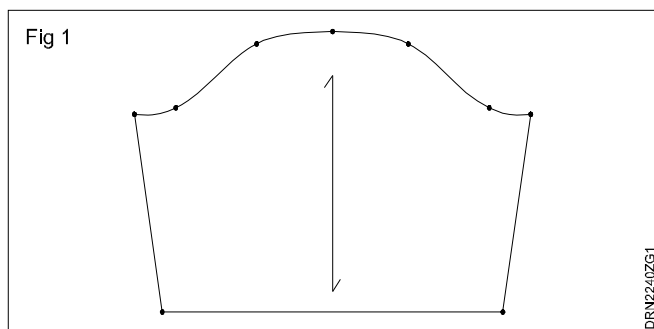
Manipulation technique of sleeve

Objectives: At the end of this exercise you shall be able to

- prepare pattern for basic plain short sleeve using adaptation method
- prepare pattern for puff sleeve gathered at top and bottom
- prepare pattern for puff sleeve gathered at top only
- prepare pattern for puff sleeve gathered at bottom only
- prepare pattern for leg o' mutton sleeve.

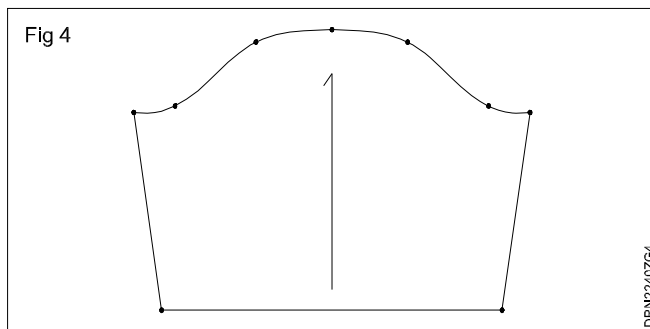
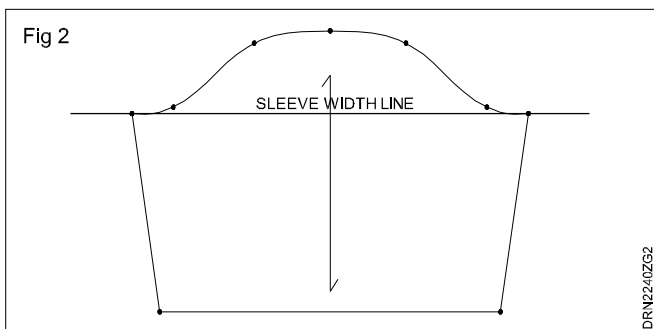
TASK 1 : Prepare pattern for basic plain short sleeve using adaptation method

- 1 Trace the ladies' sleeve block up to elbow line in a brown sheet to get the plain sleeve. (Fig 1)
- 3 Draw another line 3" below sleeve width line. Cut the pattern on the line. (Fig 3)



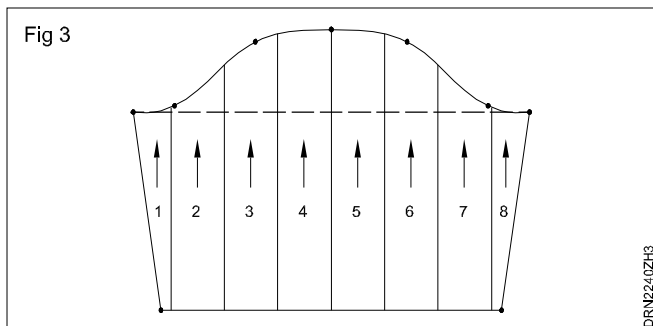
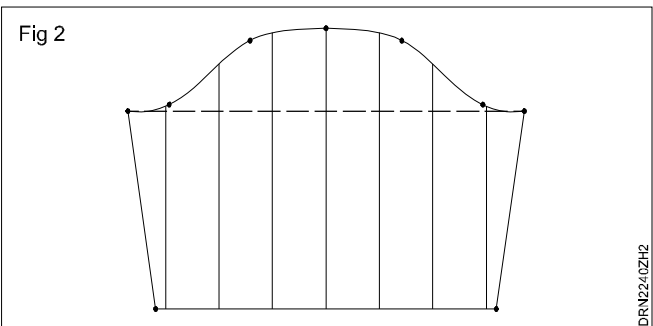
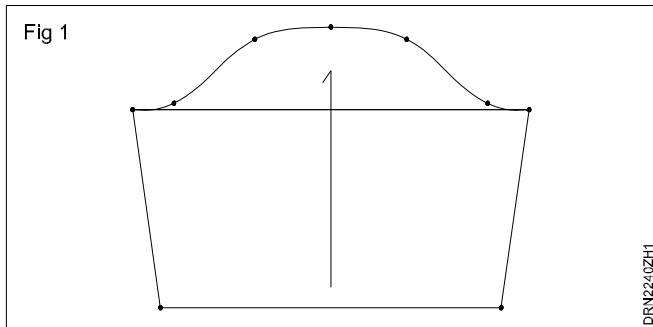
- 2 Draw the line on sleeve width. (Fig 2)

- 4 Draw the grain line. (Fig 4)

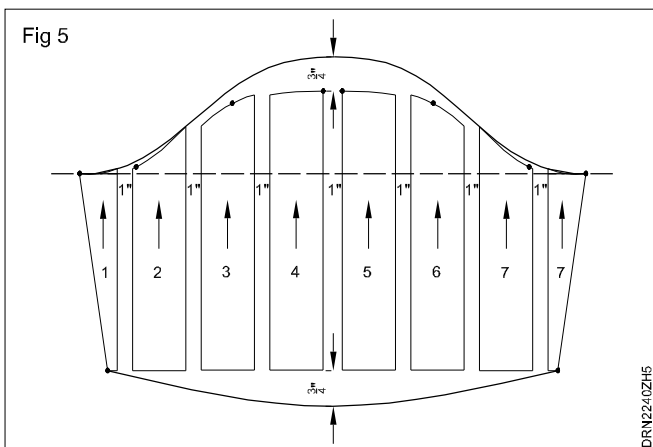
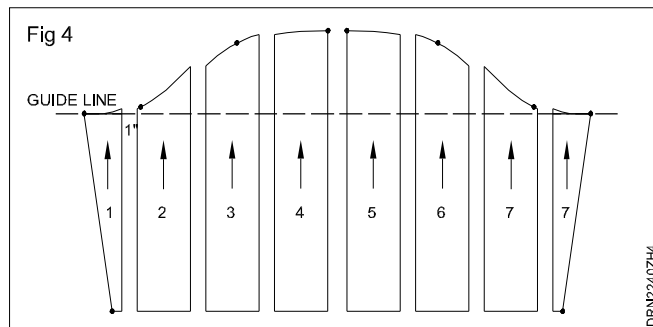


TASK 2 : Prepare pattern for puff sleeve gathered at top and bottom

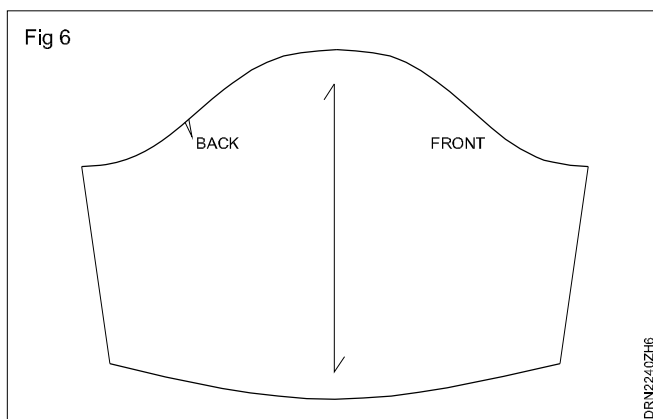
- 1 Trace the basic plain short sleeve pattern in a brown paper. Draw the sleeve width line as Guide line. (Fig 1)
- 2 Divide the Sleeve width in to 8 equal parts and draw slash lines. (Fig 2)
- 3 Draw arrow identification marks to indicate the top portion of the sleeve. Give notations like 1,2,3 for each part. (Fig 3)



- 4 Cut right through all the slash lines.
- 5 Take another brown paper and draw a guide line.
- 6 Spread the slashed patterns at the required distance (for example 1") on the brown paper by matching the patterns guide line with paper guide lines. (Fig 4)
- 7 Secure the patterns on the paper with push pins.
- 8 Redraw adding $\frac{3}{4}$ " extra length at top and bottom as shown in the figure. (Fig 5)

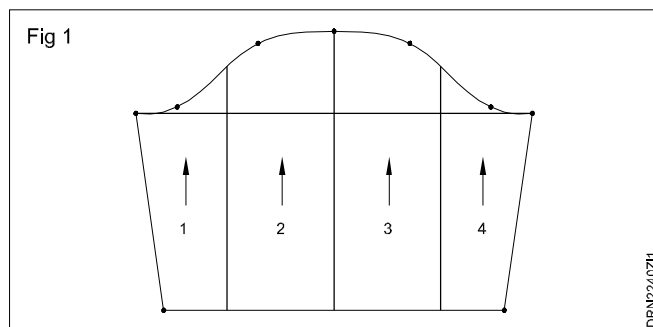


9 Draw the grain line and finish the pattern. (Fig 6)

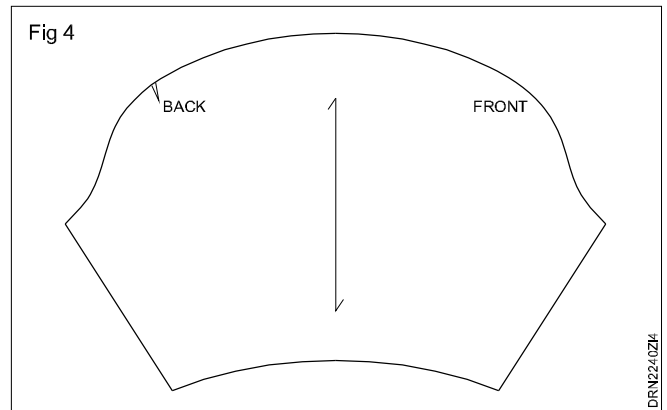
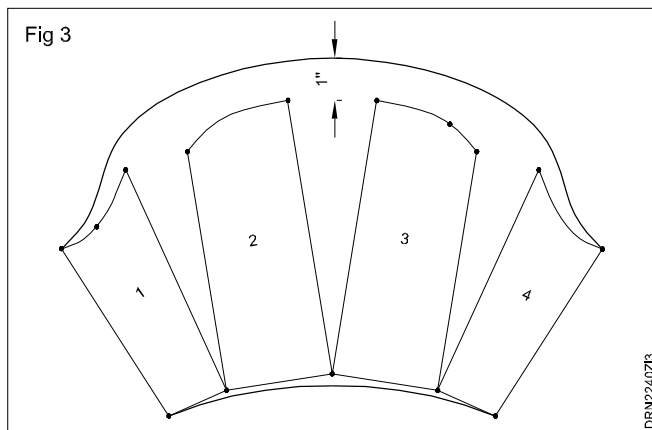
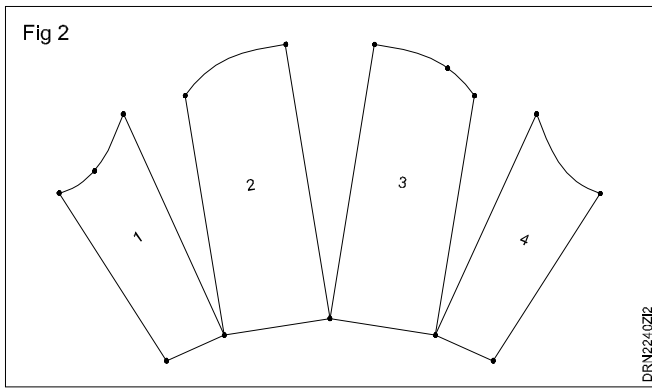


TASK 3 : Prepare pattern for puff sleeve gathered at top only

- 1 Trace the basic plain short sleeve pattern in a brown paper. Draw the sleeve width line as Guide line.
- 2 Divide the Sleeve width in to 4 equal parts and draw slash lines.
- 3 Draw arrow identification marks to indicate the top portion of the sleeve. Give notations like 1,2,3 for each part. (Fig 1).
- 4 Cut the patterns and slash along the lines from top to almost near the bottom edge.
- 5 Keep the slashed pattern on another sheet of paper and spread open the upper edge the required amount of fullness as shown (Fig 2)
- 6 Secure the patterns with paper with pins.

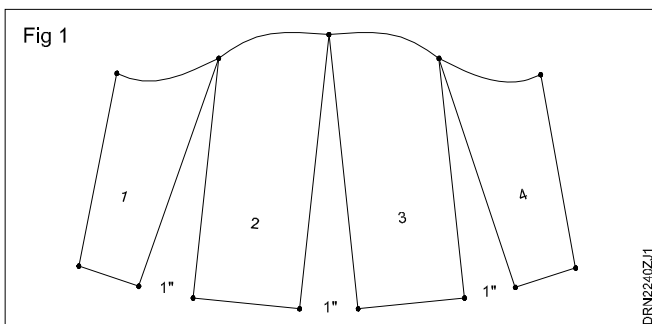


- 7 Increase the length of the sleeve by 1" as shown for puffing. (Fig 3)
- 8 Draw the outline of the new sleeve on the new sheet of paper. Draw the grain line. (Fig 4)

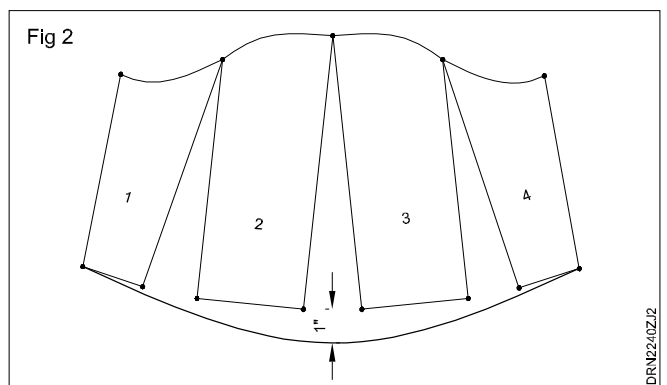


TASK 4 : Prepare pattern for puff sleeve gathered at bottom only

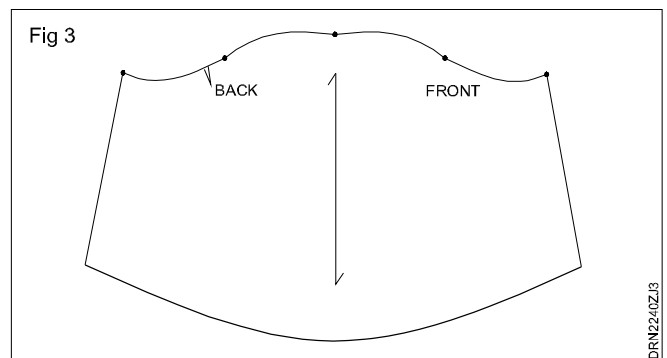
- 1 Trace the basic plain short sleeve pattern in a brown paper. Draw the sleeve width line as Guide line.
- 2 Divide the Sleeve width in to 4 equal parts and draw slash lines.
- 3 Draw arrow identification marks to indicate the top portion of the sleeve. Give notations like 1,2,3 for each part.
- 4 Cut along the slash lines on the pattern from bottom upwards and spread open the lower edge.(Fig 1)



- 5 Secure the patterns with pins.
- 6 Lengthen the sleeve about 1" for puffing as shown. (Fig 2)
- 7 Reshape the sleeve crown.

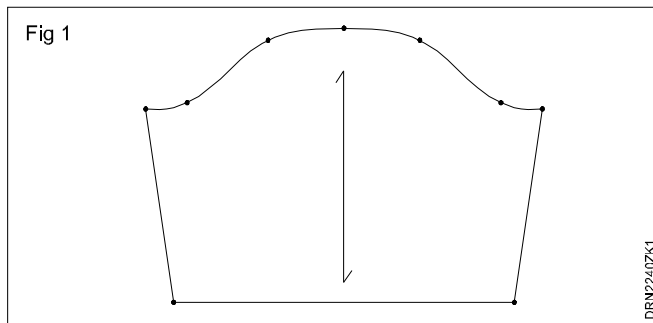


- 8 Complete the pattern by drawing grain line. (Fig 3)

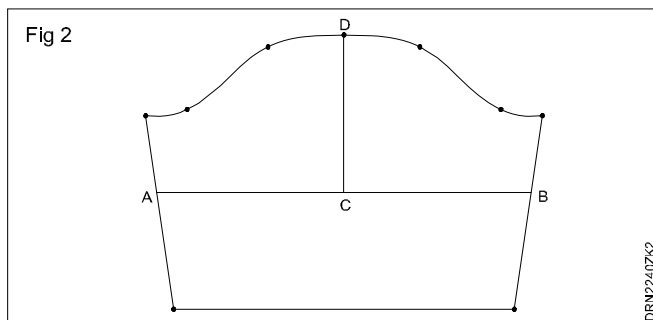


TASK 5 : Prepare pattern for leg o' mutton sleeve

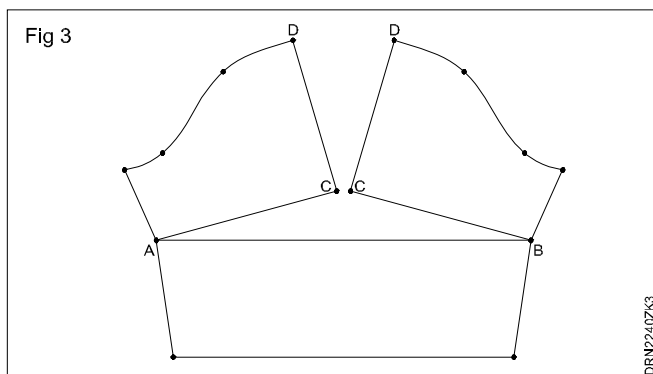
- 1 Trace the Full Sleeve block pattern in a paper without elbow dart. (Fig 1)



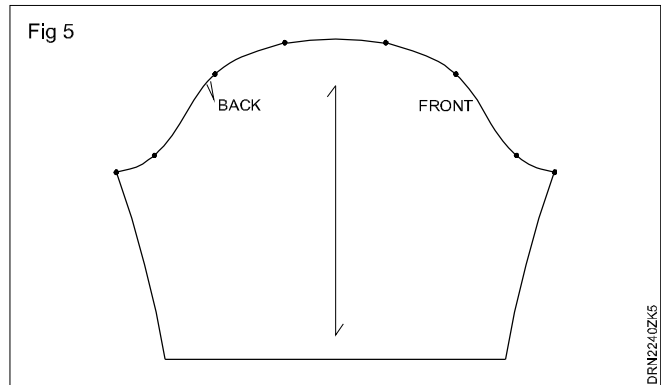
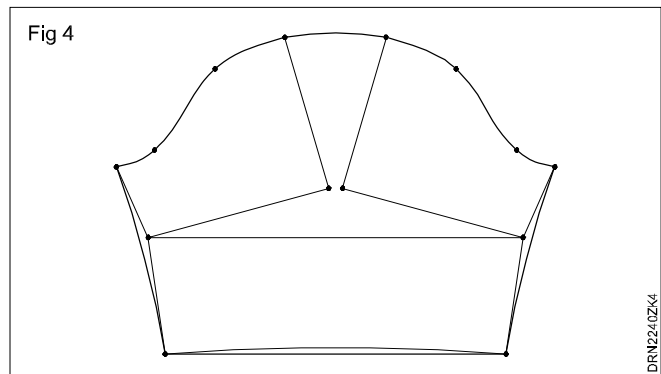
- 2 Draw line AB (elbow line) as shown in Fig 2. Now draw CD through middle of sleeve.



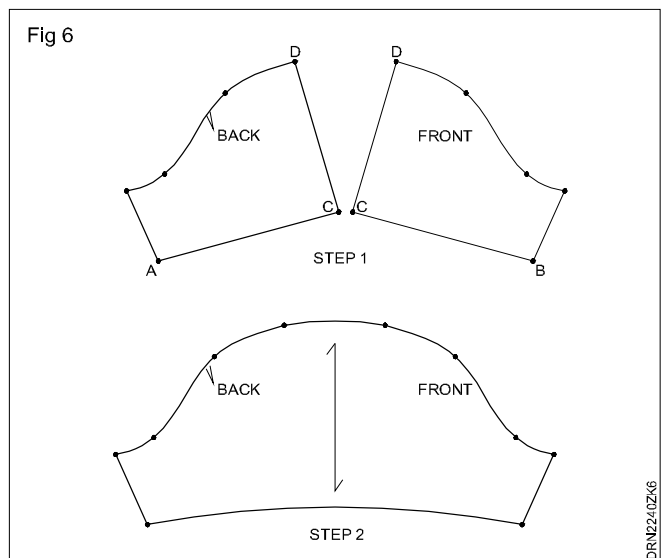
- 3 Slash along AB and CD and spread the top edge apart according to the requirement as shown in Fig 3.



- 4 Complete the pattern by joining the gap of the pattern. (Fig 4)
- 5 Complete the pattern by drawing the grain line. (Fig 5)



- 6 Prepare pattern for leg o' mutton sleeve using Plain short sleeve pattern also. (Fig 6)



Practice on operation of double needle machine

Objectives: At the end of this exercise you shall be able to

- identify the major parts of double needle lock stitch machine and their uses
- wind the lower thread (bobbin) and place bobbin case into lower assembly
- install the bobbin into rotary hook
- remove the bobbin on rotary hook latch
- thread the upper thread
- adjust the stitch length
- identify the corner sewing method
- back tack and adjust the tension of upper and lower thread
- practice stitches per length on different material.

Requirements

Tools / Instruments

- Sewing thread - 1 No.
- Scissors - 1 No.
- Trimmer - 1 No.
- Marking chalk - 1 No.

- Machine tape - 1 No.
- Bobbin - 1 No.

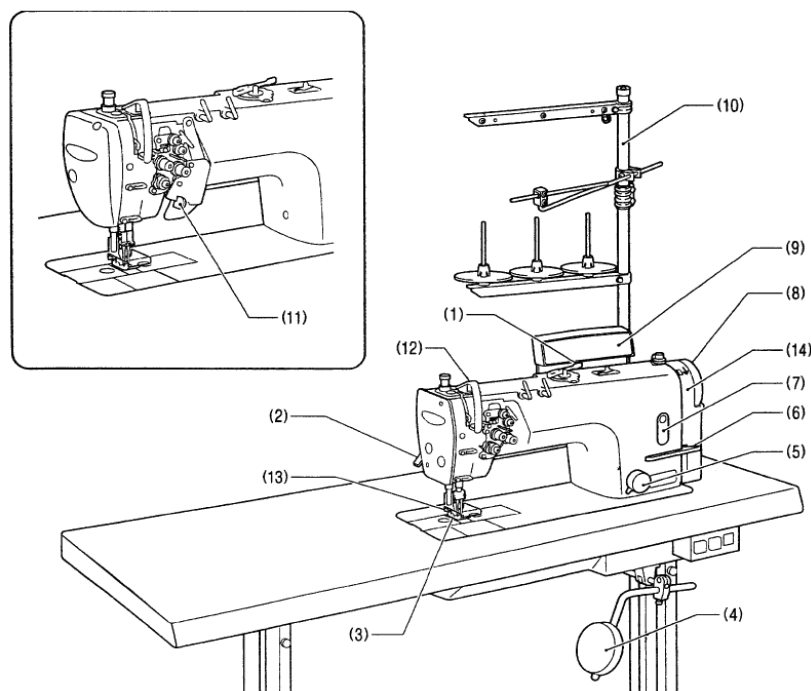
Machine

- Sewing machine - 1 No.

PROCEDURE

TASK 1 : Identify the major parts of the double needle lock stitch and their uses (Fig 1)

Fig 1



1 Bobbin winder (1)

- Wind the Bobbin by placing the Bobbin into Bobbin winder wind around 40 meters of sewing thread.
- Ensure the bobbin should not be loaded too much.

2 Lifting lever (2)

- Hand lifter used for lifting the presser foot by hand, while the m/c in ideal condition, use the hand lifter lever.

3 Presser foot (3)

- Presser foot mainly used for hold the fabric during stitching performance.

4 Knee lifter assembly (4)

- Knee lifter is used for lifting the presser foot, ensure. While stitching the knee should not touch the knee lifter. Knee lifter used for to keep the material under the presser to remove the fabric under the needle.

5 Stitch length dial (5)

- It used to maintain the length of stitch as per the fabric. While changing the length of stitch turn the regulator with the right hand and left hand hold the back tack lever.

6 Reverse lever (6)

- It is a reinforcement stitch, used to increase the stitch strength in the end or beginning.

7 Oil gauge window (7)

- It indicates the flow of oil to the internal parts of the machine.

8 Machine pulley (8)

- The diameter of the pulley decides the speed of the sewing machine. The decreasing the size of pulley indicate high speed of machine

9 Alarm display (9)

- It is used to indicate the setting machine stitches and also type of setting is available

10 Cotton stand (10)

- To hold the spool thread. Cotton thread is placed to avoid the vibration of machine.

11 Stop lever (11)

- Stop lever is used to stop the motion of the needle.

12 Thread – take lever cover (12)

- It is used to avoid the accident during the sewing the window glass is placed in a machine thread take up lever.

13 Finger guard (13)

- Safe guard to prevent the finger going under the needle.

14 Belt cover (14)

- To prevent the accident during sewing the belt has cover.

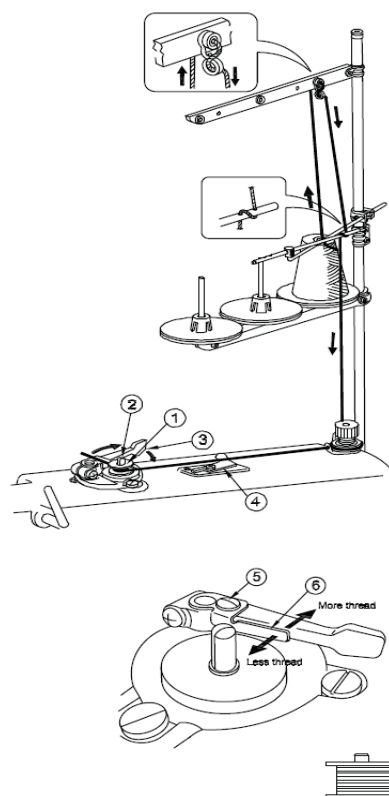
TASK 2 : Wind the bobbin for the lower assembly

- 1 While winding the bobbin ensure that power switch is off as shown in the Fig 1.

Place the bobbin on to the bobbin winder shaft. (Fig 1 Pt: 1 and 2)

- 3 Wind the thread several times around the bobbin as the direction indicated by arrow. (Fig 1 Pt:3)
- 4 Push the bobbin presser arm towards the bobbin. (Fig 1 Pt.4)
- 5 Raise the presser foot with the lifting lever. (Fig 1. Pt.5)
- 6 Depress the thread, lower thread winding then start. (Fig 1 Pt:6)
- 7 Winding of lower thread is completed the bobbin press arm will return automatically to its position.
- 8 Bobbin thread has been wound on the bobbin remove the bobbin, cut the thread with the help of the trimmer.

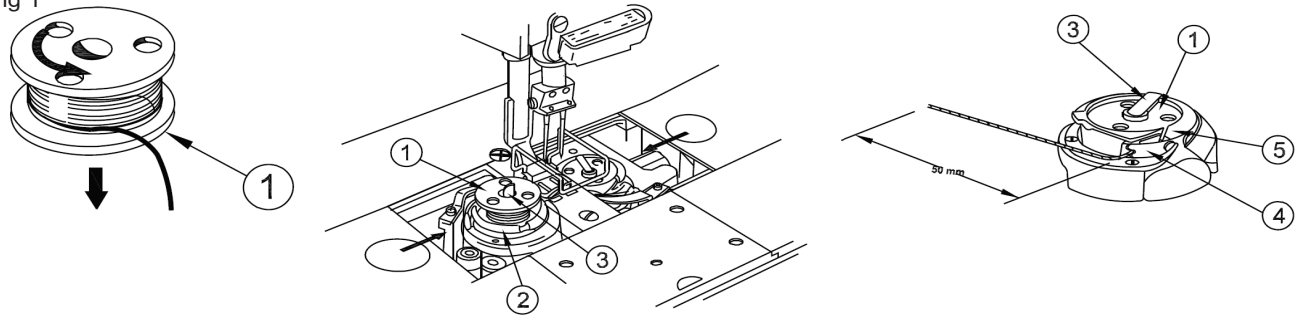
Fig 1



TASK 3 : Install the bobbin into rotary hook

- 1 Take the bobbin, open the rotary hook then place the bobbin into rotary hook.
- 2 Turn the Rotary hook latch to its original position.
- 3 Turn the machine pulley to rotate the rotary hook until the tension spring is visible.
- 4 Pass the thread through slit into the rotary hook and then pass it under the tension (thread) spring.
- 5 Pull out the thread to a length of approximately 50mm.
- 6 Close the slide plate.
- 7 Rotate the pulley and bring the bobbin thread to the top with the help of the needle. (Fig 1)

Fig 1

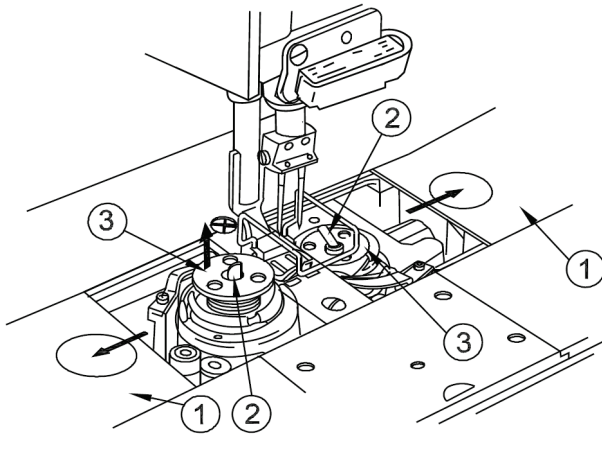


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TASK 4 : Remove the bobbin

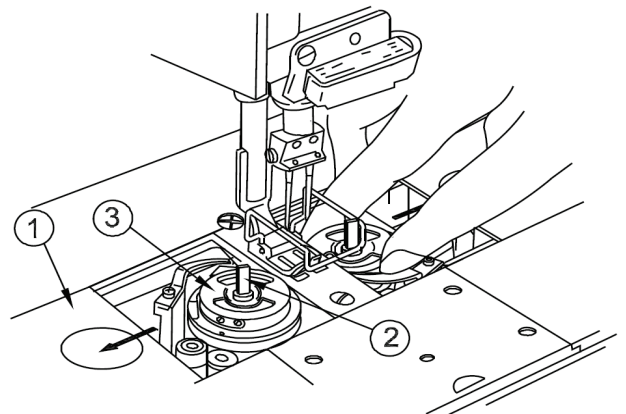
- 1 Open the machine slide plate by removing them right and left
- 2 Pull the rotary hook latch upward and then remove the bobbin by pushing upward direction as shown in Fig 1.
- 3 Ensure the needle is highest position while removing the bobbin.
- 4 Pull the rotary hook upward and remove the bobbin case. (Fig 2)
- 5 Remove the bobbin.

Fig 1



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Fig 2

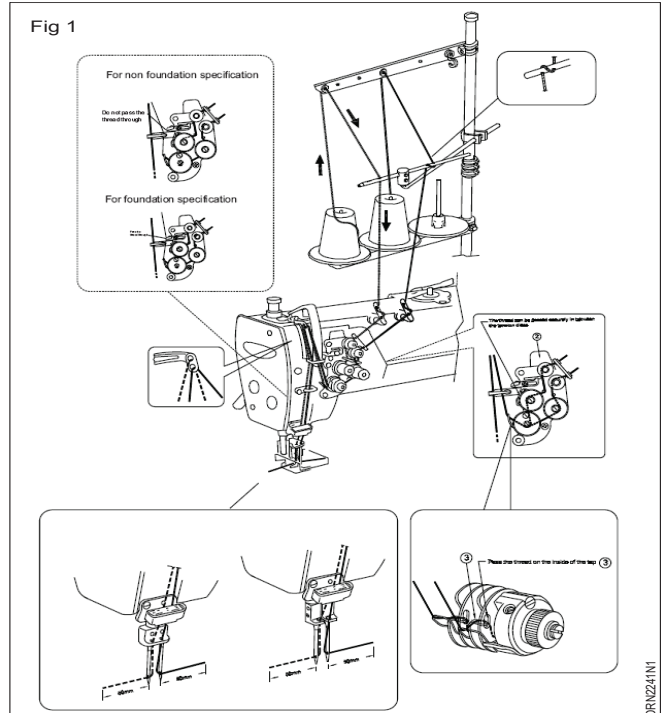


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TASK 5 : Thread the upper thread

- 1 Thread take up lever the major function of take up lever provide the thread to the needle during the stitch.
- 2 Press the tension release plates before pressing the thread to free tension disc. It will help to pass the threading easily.
- 3 Pass the thread on the inside of the tab. It will help to reduce the tension in sewing thread. (Fig 1)

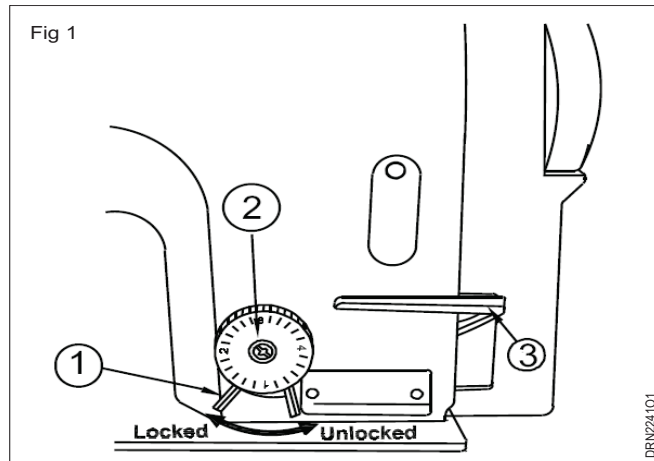
Fig 1



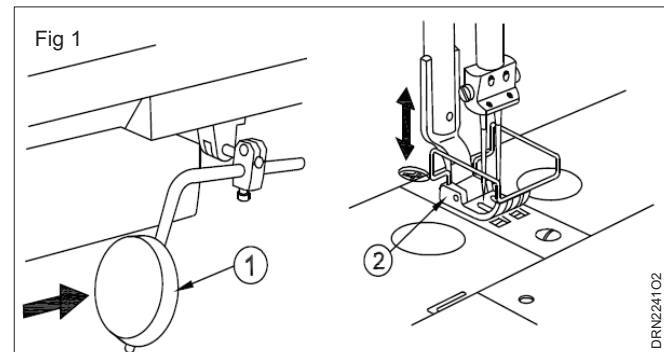
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TASK 6 : Adjust the stitch length

- 1 Unlock the stitch length dial by turning the dial lock lever to the right until the click sound is heard.
- 2 Turn the stitch length dial clockwise or counter clockwise as per the desired stitch length is at the upper most position on the dial. (Fig 1) The larger number indicate in dial is longer stitch. Depending on the fabric the stitch length can be adjusted.



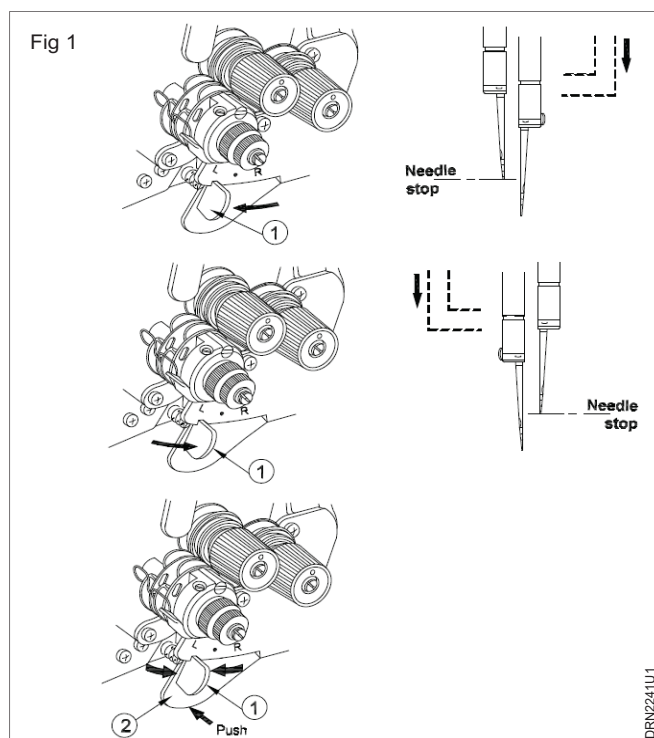
- 3 Turn the dial lock lever firmly to the left to lock the stitch length dial.
- 4 Use the knee lifter. (Fig 2)



- 5 The presser foot lifter is used to lift the presser and rotate the machine in a high speed process avoiding the hand lifter lever.

Ensure that at the end of the process the stitch length dial does not rotate.

TASK 7 : Stop the needle bars (right to left) (Fig 1)



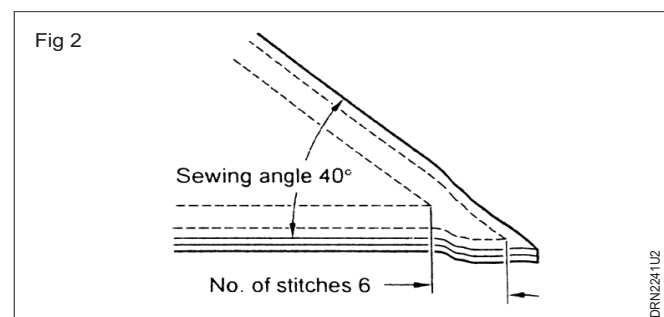
- 1 Operate the stop lever after the needle has penetrated the material is stopped moving.
- 2 While running the machine the speed of the machine should not be more than 1000 r.p.m.
- 3 To stop operation of the left needle bar move the stop lever (1) to the 'L' position.
- 4 To stop operation of the right needle bar move the stop lever (1) to the 'R' position.
- 5 To resume twin – needle sewing

- 6 Press the push lever (2)
- 7 The stop lever (1) will then return to its original position automatically.

Corner sewing method

While using this procedure in single needle machine, remove the needle which is not being used in such cases, do not use the procedures given below to stop the unused needle bar from moving, otherwise damage to the machine may result.

Number of stitches : Quick – reference guide (Fig 2)



For ¼ needle width

Determine the stitch length from the chart above to make beautiful corner stitching

The number of stitches of the outer needle varies according to the combination of sewing angle and stitch length.

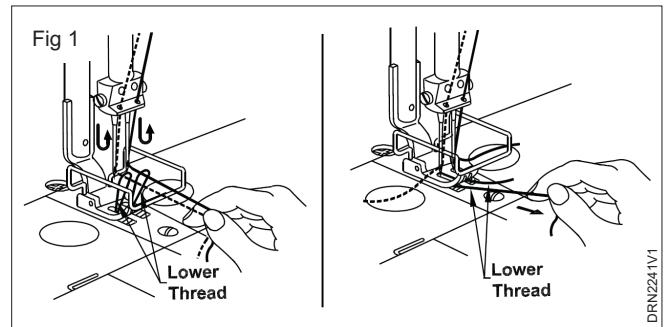
Example

For a sewing angle of 40° and a stitch length of 2.9 mm the number of stitches becomes 6.

After threading DNLS practicing for sewing.

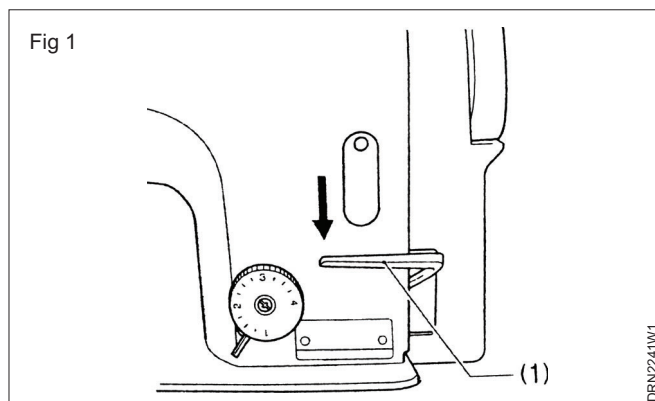
TASK 8 : Practice back tack and adjust the tension of upper and lower thread and back tacking

- 1 While holding the two upper threads with your finger turn the machine pulley by hand towards you until the lower threads come out on to the feed dog.
- 2 Pull the lower thread towards you and check that they put out smoothly.
- 3 Turn on the power switch.
- 4 Depress the treadle to start sewing. (Fig 1)



No of Stitches	Sewing angle											
	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
2					4.6	3.8	3.2	2.7	2.2	1.8	1.5	1.1
3			4.6	3.5	3.0	2.5	2.1	1.8	1.5	1.2		
4		4.4	3.4	2.8	2.3	1.9	1.6	1.3				
5	4.8	3.5	2.7	2.2	1.8	1.5	1.3					
6	4.0	2.9	2.3	1.9	1.5	1.3						
7	3.7	2.5	2.0	1.6								
8	3.0	2.2	1.7									

TASK 9 : Back tacking during sewing (Fig 1)



- 1 Press the reverse lever during sewing to feed direction will be reversed then it released. The feed direction return to its normal.

Check the thread tension

- 1 Check the stitch quality in case the loop formation occurs on the needle side (visible side)
- 2 Adjust and turn the adjusting screw with help screw drive. (Fig2)
- 3 Incase of stitch loop formation occurs in reverse side of the stitch
- 4 Lower the presser foot.
- 5 Adjust by turning the tension unit.
- 6 Formation of stitches after adjusting the thread tension. (Fig3)

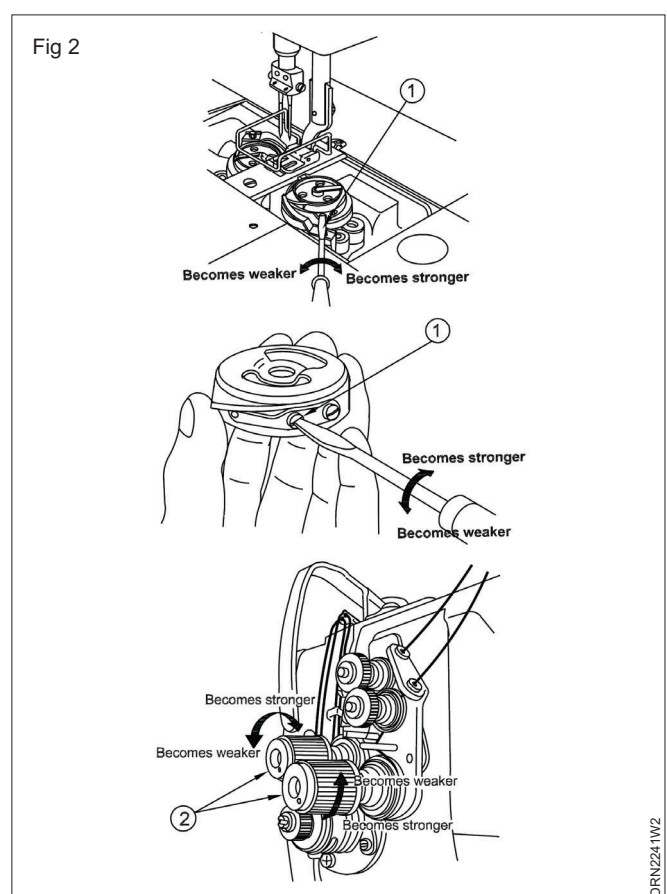


Fig 3

Correct seam



Upper thread tension too weak or lower thread tension too strong

Increase the upper thread tension.
Decrease the lower thread tension.



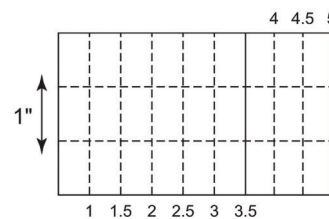
Upper thread tension too strong or lower thread tension too weak

Decrease the upper thread tension.
Increase the lower thread tension.

TASK 10 : Practice stitches per length on different material

- 1 Start the machine threading and complete the threading process.
- 2 Make samples by changing the stitch regular start from 1 as per the stitch length dial.
- 3 Turn the stitch length dial keep at 1.
- 4 Start stitching the first line of the seam with the back facing.
- 5 Again change the stitch length regulator 1.5 follow the above stitch.

Fig 1



- 6 Repeat the exercise by changing stitch regular 2, 2.5, 3, 3.5, 4, 4.5, 5. (Fig 1)

TASK 11 : Stitch and practice the corner sewing

- 1 While stitching the corner change the needle location and make the one needle at dummy position, each time reaching the corner.
- 2 Follow the same procedure on the right and left corner.
- 3 Practice the corner point stitching finally prepare the pocket stitching.

Practice on operation of button hole machine

Objective: At the end of this exercise you shall be able to

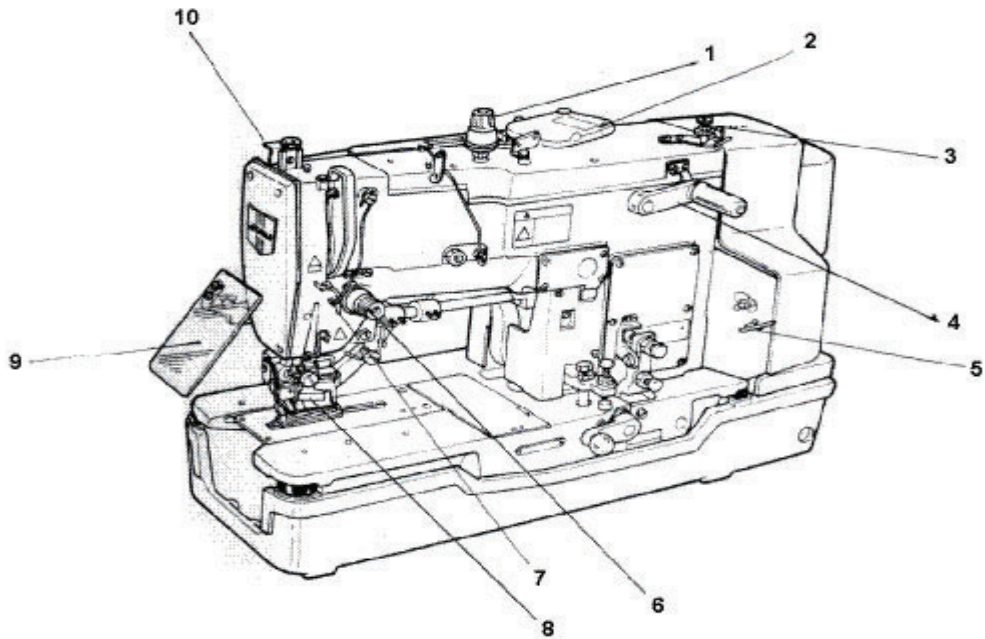
- identify the button hole stitching machine parts
- thread the button hole machine
- install and remove the bobbin case
- reduce the speed of the machine
- change the number of stitch length.

TASK 1 : Identify the button hole stitching machine parts (Fig 1)

Machine parts

- 1 Thread tension disc.
- 2 Speed gear for changing the number stitches in button hole.
- 3 Bobbin winder.
- 4 Emergency stopper.
- 5 Bobbin winder.
- 6 Thread tension (needle tension) disc.
- 7 Spring guard.
- 8 Knife for making the hole after stitching the button hole.
- 9 Window glass.
- 10 Knife stop lever.

Fig 1

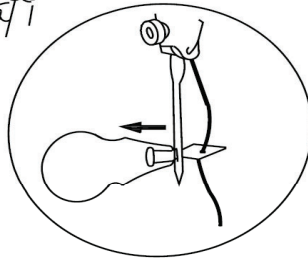
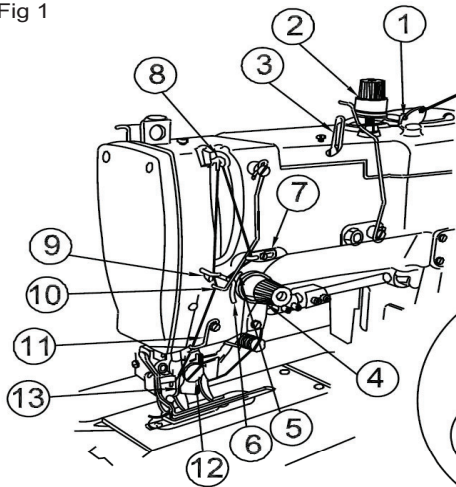


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TASK 2 : Thread the button hole sewing machine

- 1 Pass the needle thread from the spool stand to the thread guide. (Fig 1)
- 2 Pass the thread from left to right to the thread tension disc.

Fig 1



Cotton thread, spun thread Synthetic filament thread



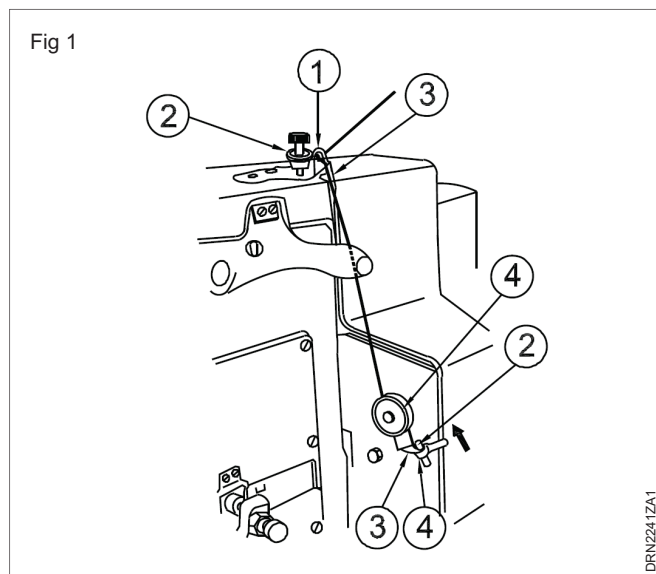
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- 3 Then pass the thread to another thread guide from front to back.
- 4 Pass the thread to the thread tension disc from down to top direction.
- 5 Pass the thread from tension disc to spring guide.
- 6 Pass the thread to the thread guide
- 7 From the thread guide to 'T' guard pass the thread.
- 8 Bring the thread from 'T' guard to take up lever. Back to front pass the thread.
- 9 Then take up lever to pull the thread towards to down thread guide.
- 10 Finally pass the thread to adjusting thread guide pass the thread.
- 11 Pass the thread to 11 and 12 thread guide (in case of sewing thread cotton pass the thread to 12 guide directly).
- 12 Finally pass the thread into needle from back to front threaded.

Repeat the exercise for four or five times.

TASK 3 : Install and remove the bobbin case in the button hole machine

- 1 Fit a bobbin onto the bobbin winder shaft.
- 2 Take the thread from the spool and pass it through the guide. (Fig 1)

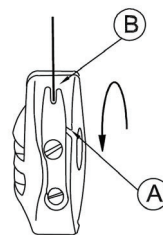


- 3 Push bobbin winder trip latch in the arrow direction and then bobbin will be wound.
- 4 Loosening the adjusting nut so that the bobbin is wound about four – fifths full.

Attach the bobbin into the bobbin case

- 1 Hold and place a bobbin into the bobbin case so that the bobbin is wound counter clockwise. (Fig 2)
- 2 Passing the thread through the thread outlet A of the bobbin case, pull the thread and thread can be drawn out from the thread outlet B, passing under the bobbin winder tension spring.

Fig 2

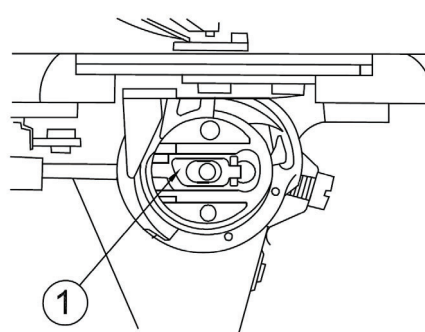


- 3 Set the bobbin so that in the arrow direction when the bobbin thread is pulled.

Installation/Removal of bobbin case

- 1 Lift up and hold bobbin case latch lever between two fingers to remove it from the hook. A bobbin does not fall off the bobbin case while the latch lever is lifted up.
- 2 For installation of the bobbin case push the bobbin case into the hook, so that it is supported by the hook shaft and the snap in the latch cover. (Fig 3)

Fig 3



TASK 4 : Reduce the speed of button hole sewing machine, emergency stop motion and manual feed handle

- 1 Reduce the speed of button hole sewing machine

To reduce the speed of sewing machine turn hand stop crank downwards to position A and the machine will be immediately slow down.

Emergency stop motion

- 1 Turn the hand stop crank downward to position A further upwards to position B and the machine will stop immediately. (Fig 1)

To operate the manual feed handle

- 1 After giving emergency stop to resume sewing from the point at which the thread was broken, rotate the manual feed handle to operate the cloth feeding mechanism. (Fig 2)

To stop the knife descend knife latch

- 1 Thread breakage occurs after sewing due to some other reasons, keep on pressing down knife stop lever lightly

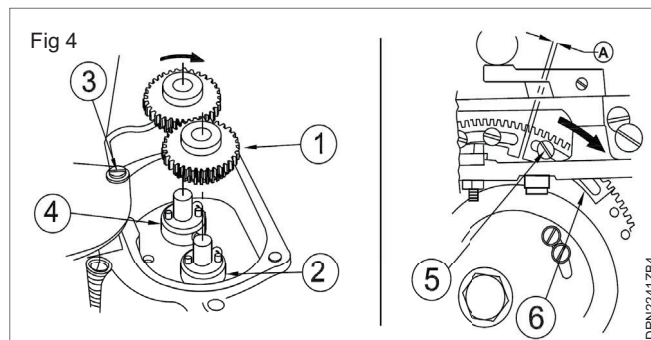
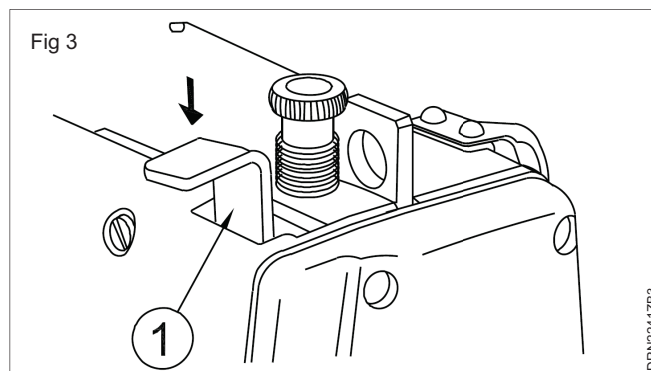
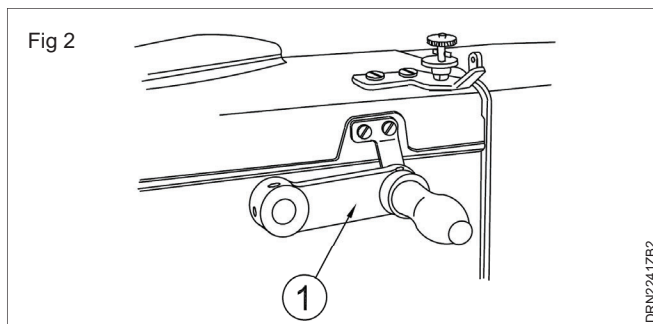
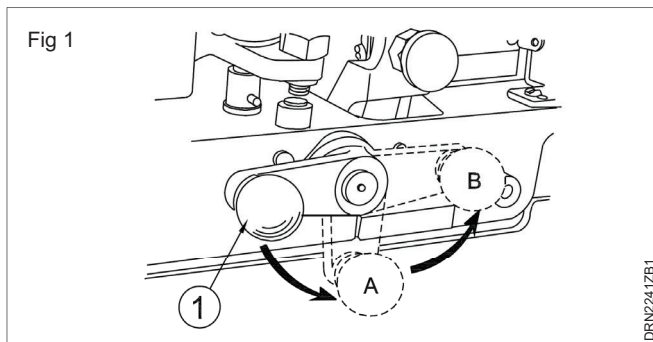
until the machine stops then the knife will not cut the fabric. (Fig 3)

Attach speed gear to the shafts

- 1 Push gear into the shaft so that it is securely fixed by the pin on gear bushing.
- 2 Located to an open
- 3 For installing gear on the pin rear gear bushing.
- 4 Push gear into the shaft while turning it the arrow direction. (Fig 4)

Adjust the length of the button hole

- 1 Pull out the cover
- 2 Raise the cover
- 3 Loosen the nut by using spanner
- 4 Set the point to a desired length on scale. Then tighten the nut. Then through the trial sewing adjust the length of button hole as per requirement. (Fig 4)



TASK 5 : Change the number of stitches in the button hole machine

- 1 The number of stitches in button hole decided by the combination of speed gear. Details are given in the following table. Select the speed gear and decides the number of stitches in the button hole.
- 2 In the table alphabetical marks like A, B, C etc., numerals like 132, 152 etc., are both engraved on each speed gear for identification. Use combination of gears which have the same alphabetical marks.
- 3 The numerical engraved on the gear installed in the rear position will represent the number of stitches provided by the combination of speed gear as shown in the table.

Symbol			Symbol		
i	54	345	A	93	200
Ⓚ	62	300	B	100	190
K	66	285	C	105	180
Ⓛ	70	268	D	110	170
M	72	252	ⓔ	115	180
N	79	238	F	123	152
O	83	225	ⓖ	130	145
	88	212	H		

Practice on operation of button sewing machine

Objective: At the end of this exercise you shall be able to

- identify the major parts of button stitching machine
- threadle the button stitching machine
- adjust the stitch length.

TASK 1 : Identify the major parts of button stitching machine

Name of the machine parts (Fig 1)

- 1 Needle thread tension disc
- 2 Window glass

- 3 Presser foot
- 4 Needle
- 5 Thread take up lever

TASK 2 : Threadle the button stitching machine (Fig 1)

- 1 Start threading from the spool to thread guide 1 and 2.
- 2 Rotate the thread into tension disc in clockwise direction 3 and 4.
- 3 Put the thread into thread guide 5, 6, 7, 8, 9, 10 and 11, 12, 13.
- 4 Thread the 14th thread guide bring to spring 15, 16, 17 and 18.
- 5 Before threading into needle pass the thread 19 and 20 guide, 21 thread the needle thread from front to back.

Fig 1



Fig 1



TASK 3 : Adjust the stitch length (Fig 1)

Length wise feed

- 1 Length wise feed push down the adjusting lever as shown in Fig 3 Pt:1
- 2 Set the feed to '0' for 2 holes buttons (0) 4 holes buttons

Cross wise feed

Loosen nut as shown in Fig 1 Pt: 2 and set section (a) of pointer (3) to a corresponding amount. Then tighten nut (2) for cross wise feed.



Practice on operations of multi purpose (Zig Zag) machine

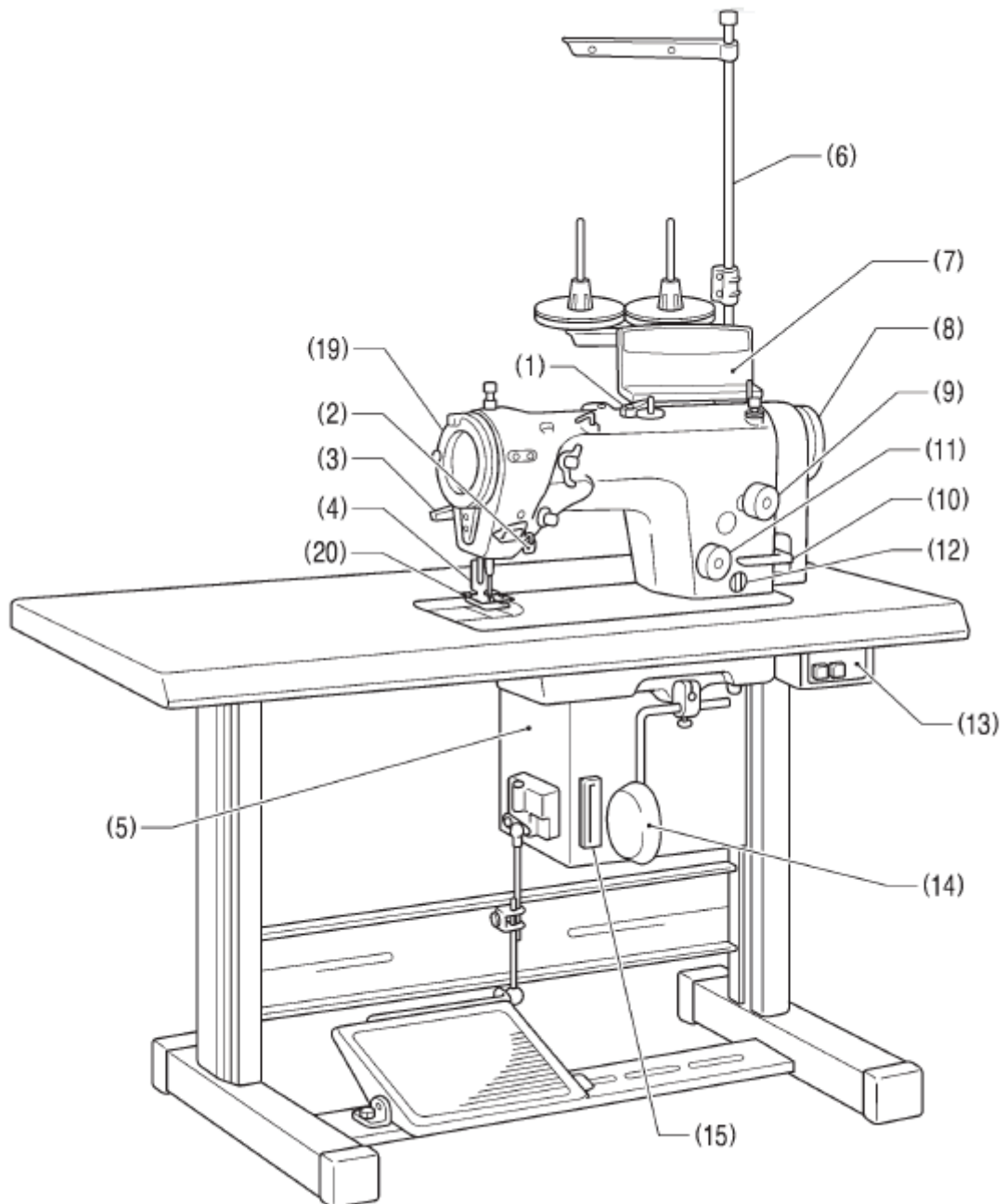
Objectives: At the end of this exercise you shall be able to

- identify the parts of a zig zag machine
- practice winding the lower zig thread on zig zag machine
- practice installing the bobbin case on zig zag machine
- practice upper threading on zig zag machine
- practice adjusting the stitch length on zig zag machine
- practice setting the sewing pattern on zig zag machine
- practice setting the zigzag width on zig zag machine
- practice sewing on zig zag machine.

TASK 1 : Identify the parts of zig zag machine

- 1 Identify the parts of a Zig Zag Machine with the help of the following figure. (Fig 1)

Fig 1



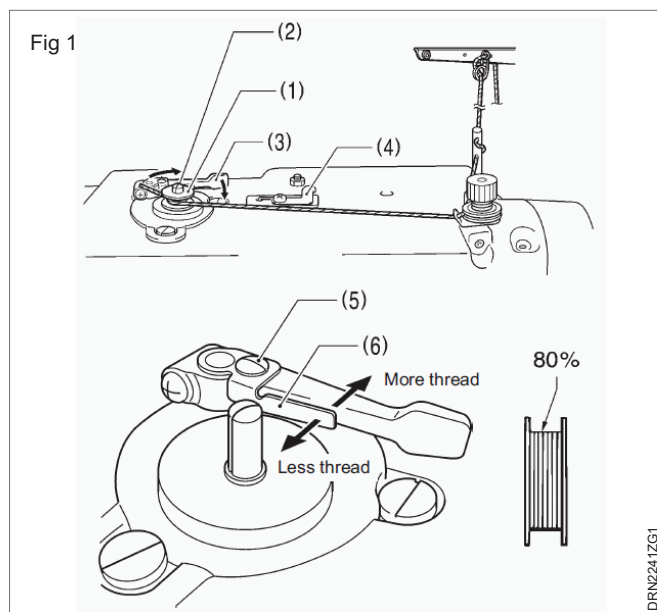
- 1 Bobbin winder
- 2 Actuator
- 3 Lifting lever
- 4 Presser foot
- 5 Control box
- 6 Cotton stand
- 7 Operation panel
- 8 Machine pulley
- 9 Stitch length dial
- 10 Reverse lever

- 11 Condense dial
- 12 Oil gauge window
- 13 Power switch
- 14 Knee lifter assembly
- 15 CF slot
- 16 Upper thread feeding device
- 17 Knife unit
- 18 Thread wSiper

Safety devices

- 1 Thread take up guard cover
- 2 Finger guard

TASK 2 : Practice winding the lower thread on Zig Zag Machine (Fig 1).



- 1 Turn on the power switch.
- 2 Place the bobbin (1) onto the bobbin winder shaft (2).

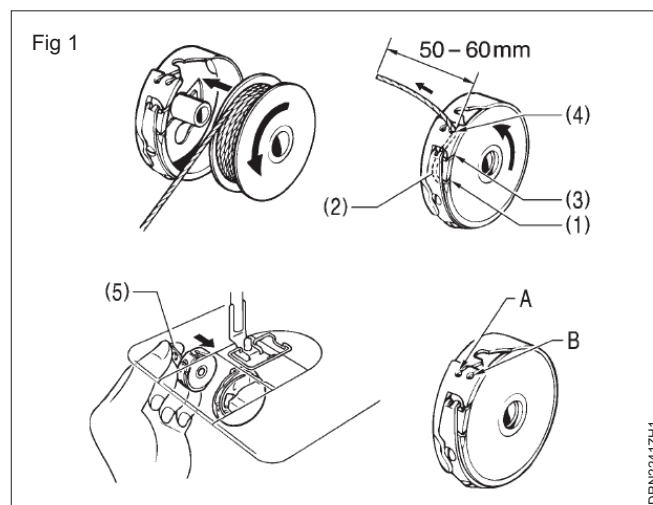
- 3 Wind the thread several times around the bobbin (1) in the direction indicated by the arrow.
- 4 Push the bobbin presser arm (3) toward the bobbin (1).
- 5 Raise the presser foot with the lifting lever.
- 6 Depress the treadle. Lower thread winding will then start.
- 7 Once winding of the lower thread is completed, the bobbin presser arm (3) will return automatically.
- 8 After the thread has been wound on, remove the bobbin and cut the thread with the knife (4).
- 9 Loosen the screw (5) and move the bobbin presser (6) to adjust the amount of thread wound onto the bobbin.

The amount of thread wound onto the bobbin should be a maximum of 80% of the bobbin capacity.

Do not touch any of the moving parts or press any objects against the machine while winding the lower thread, as this may result in personal injury or damage to the machine.

TASK 3: Practice installing the bobbin case on zig zag machine (Fig 1).

- 1 Turn the sewing machine pulley to align the reference line on the pulley with the indent in the motor cover.
 - 2 Hold the bobbin so that the thread spools out counter clockwise, and place the bobbin into the bobbin case.
 - 3 Pass the thread through slot (1) and hook it under the tension spring (2).
 - 4 Pass the thread back through the slot (3) and then pull it out from the thread guide.
- A and B on the thread guide (4) (Guide to identification)
- A Normally A should be used.
- B The amount of lower thread feeding-out is greater than for A, so this is ideal for extremely stretchy materials and medium-weight materials.
- 5 Check that the latch (5) of the bobbin case, insert the bobbin case into the rotary hook.
 - 6 While holding the latch (5) of the bobbin case, insert the bobbin case into the rotary hook.



Turn off the power switch before installing the bobbin case.

The machine may operate if the treadle is depressed by mistake, which could result in injury.

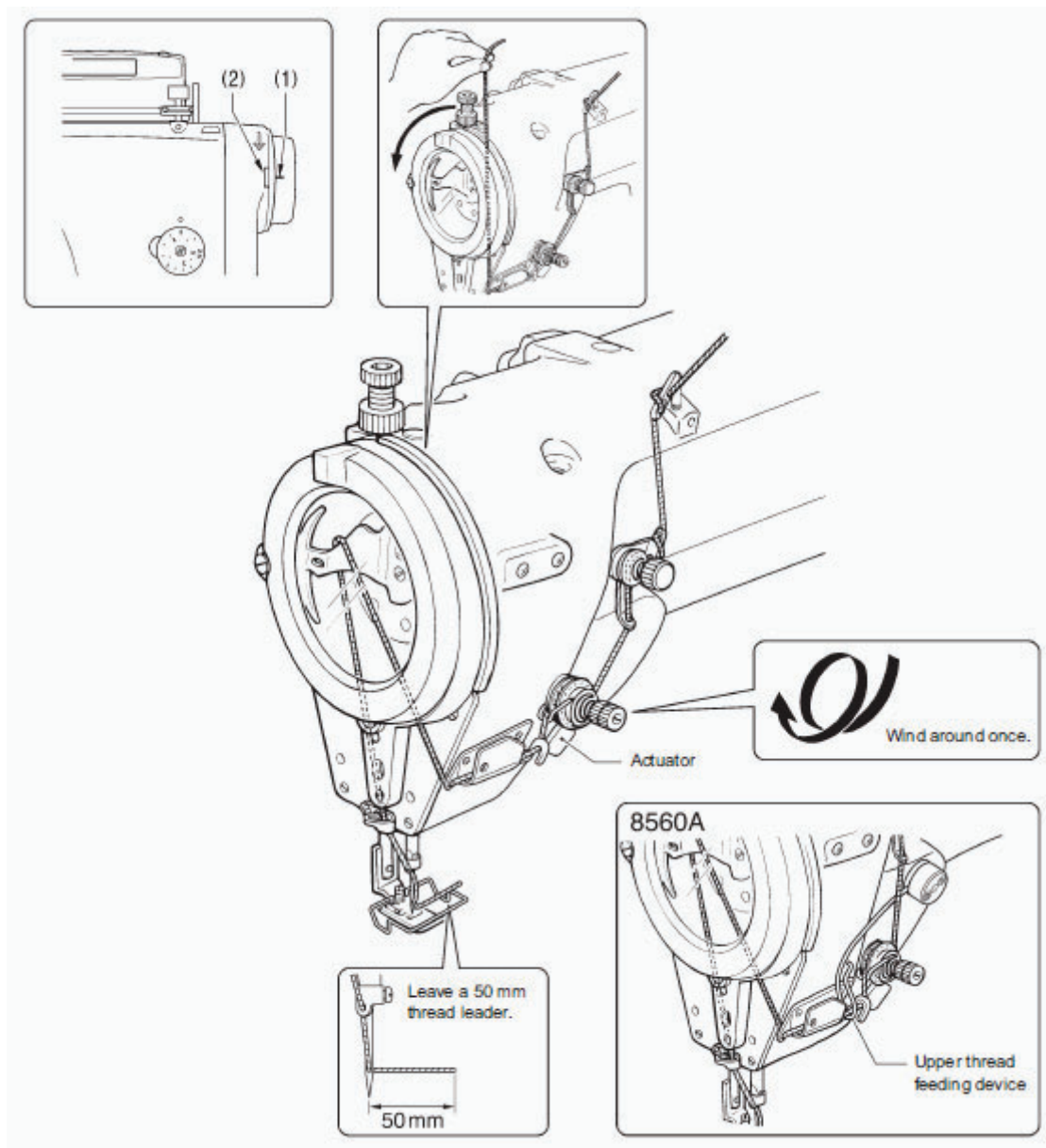
TASK 4 : Practice upper threading on zig zag machine (Fig 1)

- 1 Turn the sewing machine pulley to align the reference line (1) on the pulley with the indent (2) in the motor cover (needle up stop position)
- 2 This will make threading easier and it will prevent the thread from coming out at the sewing start.

Turn off the power switch before threading the upper thread.

The machine may operate if the treadle is depressed by mistake, which could result in injury.

Fig 1



If the actuator is pressed by mistake when using the correction sewing function, the needle will move in a zig zag motion while the machine is operating and injury may result.

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TASK 5 : Practice adjusting the stitch length on zig zag machine (Fig 1)

Turn the stitch length dial (1) until the desired stitch length number is aligned with the index mark (2) above the dial.

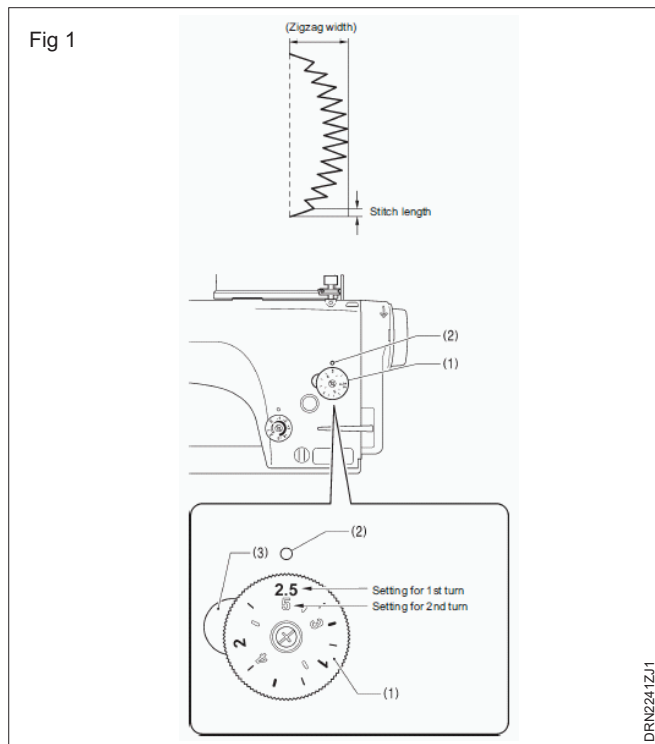
- The larger the number, the longer the stitch length will be.
- The numbers on the dial are for use as a guide. The length of the finished stitches may vary depending on the type and thickness of material being sewn. Adjust while looking at the finished stitches.

If the stitch length dial (1) is turned to a setting greater than 2.5

- In this case, replace gauge parts such as the feed dog with parts for using with a feed amount of more than 2.0mm.

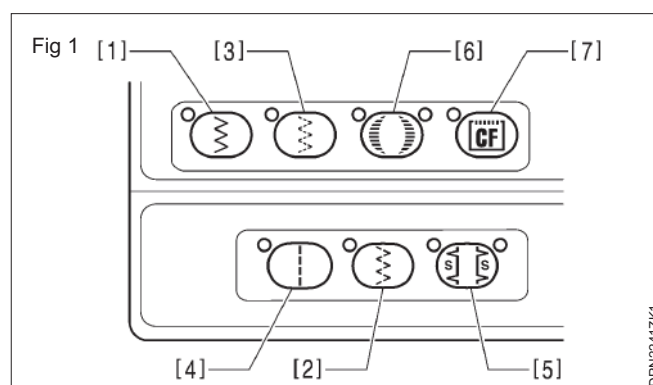
- In addition, change the maximum feed amount setting while referring to Page 57, and then adjust the stitch length dial (1) as described below.

- Turn the stitch length dial (1) all the way to "2.5".
- After this, push the left lever (3) while turning the stitch length dial (1) so that it can be turned a second time. When the stitch length dial (1) is turned a second time, the settings will be those on the inside of the scale (3-5).
- When turning the dial from a larger number to a smaller number, it can be turned to the second time setting without pushing the left lever (3).



TASK 6 : Practice setting the sewing pattern on zig zag machine (Fig 1)

- 1 Press the sewing pattern select keys ([1] to [7] in the illustration left) to select the sewing pattern. The indicator for the key that was pressed will illuminate and the pattern number that has been set for that key will appear in the main display.
- 2 When a sewing pattern has been set, be sure to set the zig zag width.
- 3 Different zig zag widths and zig zag lengths can be set for each sewing pattern.



TASK 7 : Practice setting the zig zag width on zig zag machine (Fig 1 & 2)

Set the zig zag width after selecting the pattern number.

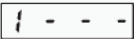
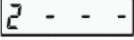
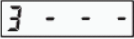
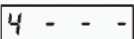
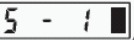
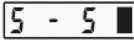
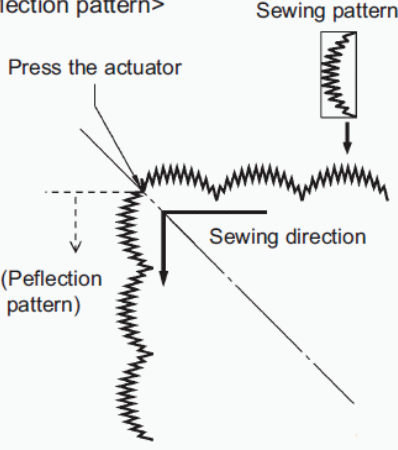
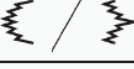
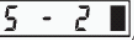
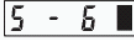
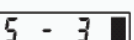
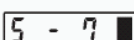
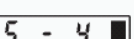
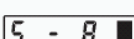
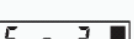
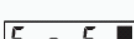
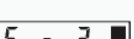
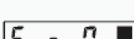
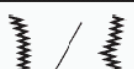
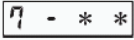
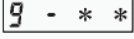
The zig zag width is defined as the distance between the left most needle drop point and the right most needle drop point.

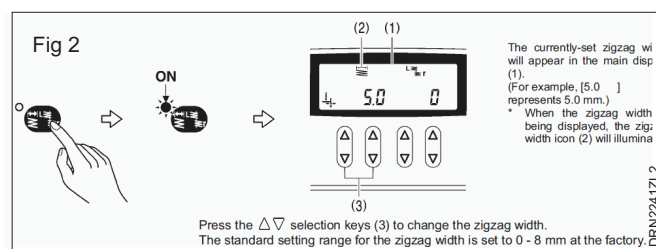
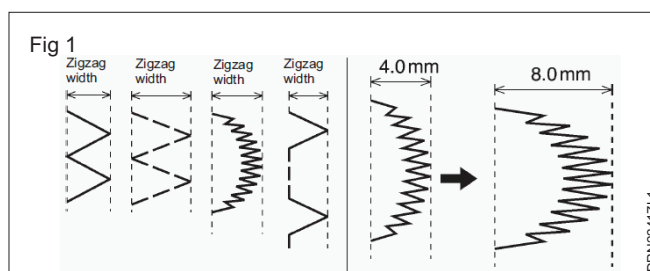
If the zig zag width is increased or reduced, the width of the sewing pattern is also increased or reduced by the same proportion.

- 1 The zigzag width will be automatically set to (0.0) only when the straight stitch has been selected as the sewing pattern.

Note

- The zigzag width cannot be changed if the indicator is not illuminated, even when the zigzag width is being displayed in the main display. When changing the zigzag width, press the zigzag width/zigzag base line position key so that the indicator is illuminated, and then change the setting.
- If the needle bar is at the needle up stop position, the needle bar will move to the sewing start position when the zigzag width is changed.
- If the needle bar is not at the needle up stop position, the needle bar will move to the sewing start position after it next moves to the needle up stop position.

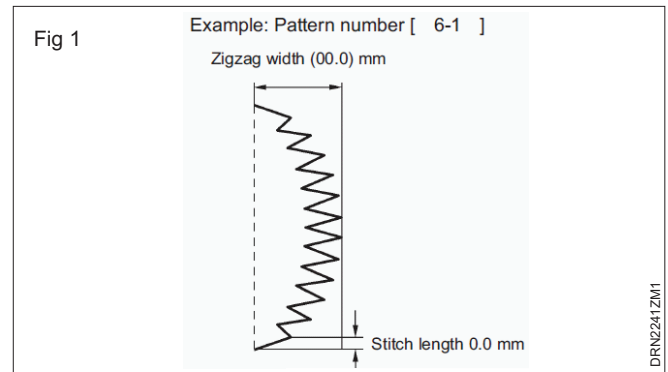
	Sewing pattern	Pattern no. (Main display)	Notes
Straight stitch			
Plain zigzag			
2-step zigzag			
3-step zigzag			
Scallop (left)	Crescent scallop (24sts.)	  / 	If R is set in the column marked with  , a reflection pattern can be sewn by stopping the sewing machine and then pressing the actuator. <Reflection pattern> 
	Even scallop (12sts.)	  / 	
	Standard scallop (24sts.)	  / 	
	Even scallop (24sts.)	  / 	
Scallop (right)	Crescent scallop (24sts.)	  / 	
	Even scallop (12sts.)	  / 	
	Standard scallop (24sts.)	  / 	
	Even scallop (24sts.)	  / 	
Blind stitch (left)			In the columns marked with *, the number of stitches sewn in a straight line can be set within the range of 1 to 99 stitches.  (No. of stitches)
Blind stitch (right)			
Custom made pattern	-		Sewing patterns created using the PS-300B (optional device) can be sewn. (The pattern number is set in the columns marked with *.)



TASK 8 : Practice sewing on zig zag machine

- 1 Press the ON power switch.
- 2 Use the operation panel to make the necessary settings such as sewing pattern and zigzag width.
- 3 Set the stitch length using the stitch length dial.
- 4 Place the cotton fabric under the presser foot.
- 5 Depress the treadle to start sewing. (Fig 1)

Get the work checked by your instructor.



Pattern making using draping/adaptation ladies wear

Objectives: At the end of this exercise you shall be able to

- prepare the muslin cloth for draping in basic bodice
- prepare the muslin for dart variation.

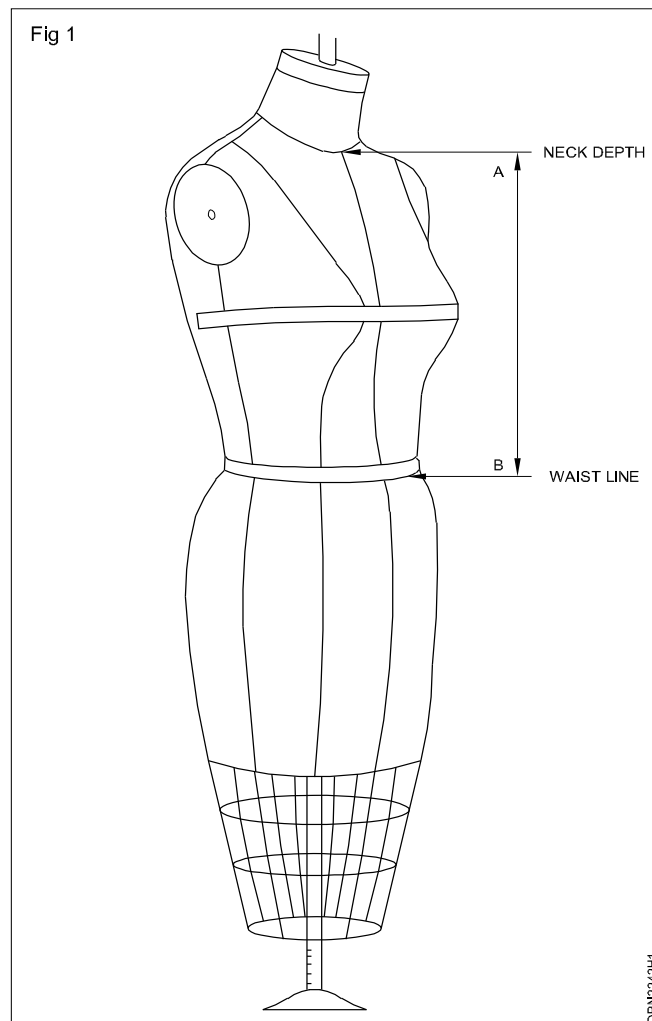
Requirements

Materials

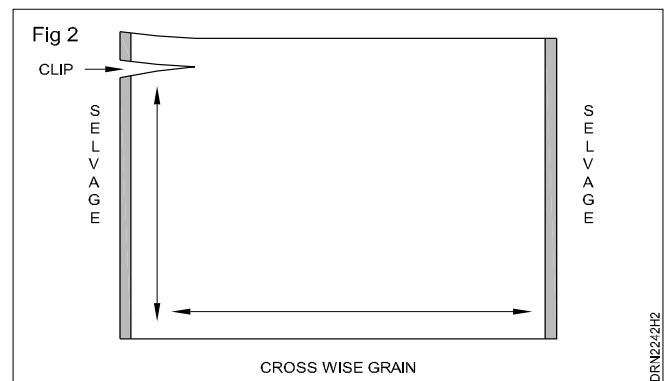
• Tailor chalk	- 1 No.	• Tracing paper	- 1 No.
• Measuring tape	- 1 No.	• Dress form	- 1 No.
• Scissors	- 1 No.	• Iron box	- 1 No.
• Pencil HB	- 1 No.	• Ironing table	- 1 No.
• Quilters ruler	- 1 No.	• Muslin cloth	- 1 No.
• Paper pins	- 1 No.	• Tracing wheel	1 No.

PROCEDURE

TASK 1 : Preparation of muslin cloth for draping (Fig 1)



- 1 Measure the dress form from the neckline to waist line (a ↔ b)
- 2 On the fabric measure along the selvedge the required measurement + 10cm for the seam allowance. (Fig 2)



Tearing : The true cross wise grain (widthwise) which form the edge of the fabric used for draping.

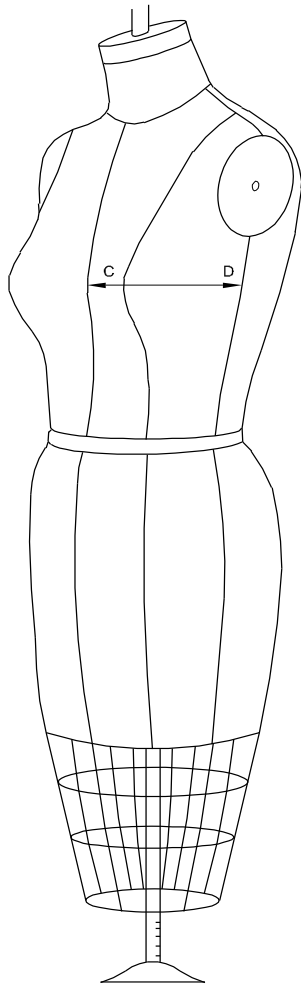
- 3 Clip (slit with scissors) selvedge & tear along the cross wise grain.
- 4 On the dress form measure the distance from side seam to the center front at the bust level. (c ↔ d)
- 5 On the fabric measure along the crosswise grain the required measurement add 10cm for seam allowance.
- 6 Clip (slit with scissors) along the length wise grain.
- 7 Block & press the muslin.

Blocking : There shopping of the muslin cloth by pull the edges diagonally until the fabric is square right angle. (Fig 3)

Pressing : Once the blocking process is finished pressing of the muslin blocked fabric is a must to keep the yarn in place press in the direction of length wise & crosswise grain. Do not press bias wise. Use only steam & dry iron. (Fig 4)

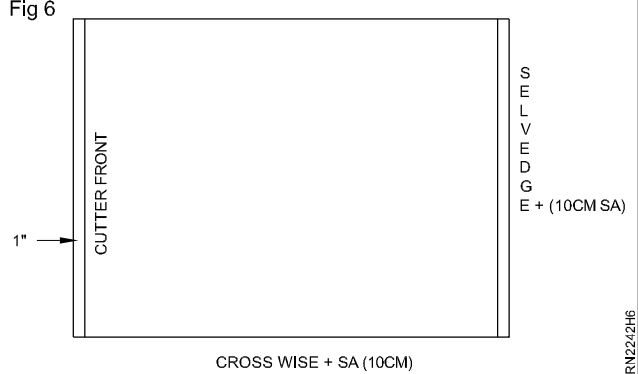
- 8 Draw the grain line for center front leaving 1" from the lengthwise form edge.
- 9 Measure the length & width of the bust point on the dress form. (l) (Fig 5)

Fig 3



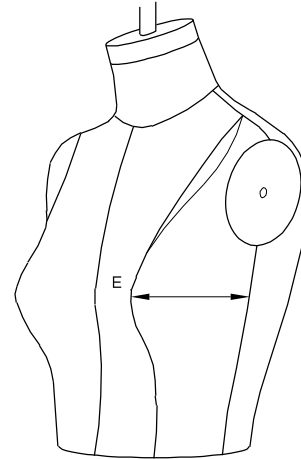
DRN2242H3

Fig 6



DRN2242H6

Fig 7

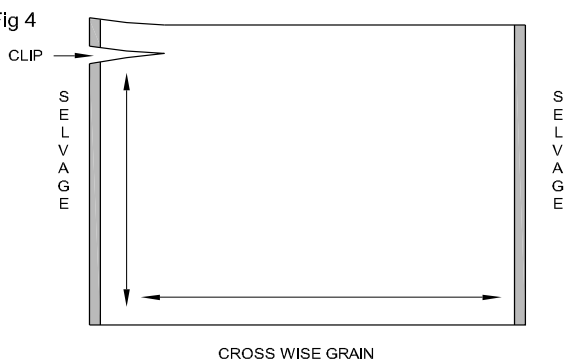


DRN2242H7

12 Mark the princess panel dividing the open and fid seam.

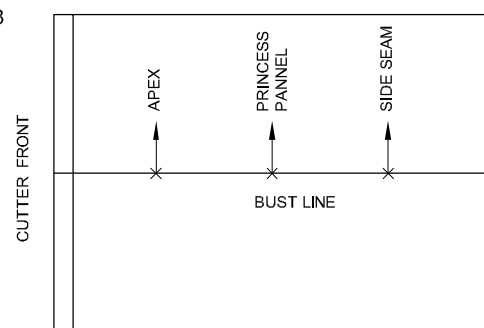
13 Draw lines on the marked points lengthwise. (Fig 8)

Fig 4



DRN2242H4

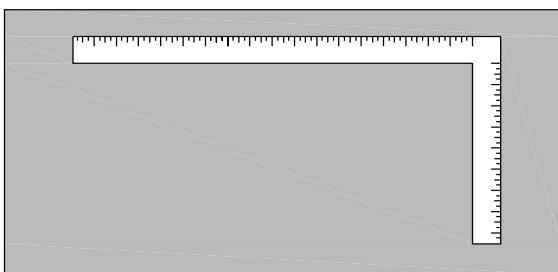
Fig 8



DRN2242H8

14 Block and press the fabric before draping. (Fig 9)

Fig 5

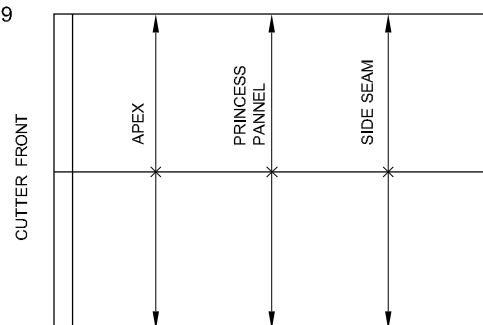


DRN2242H5

10 Mark the bust point & Draw the line crosswise on the fabric dividing it. (Fig 6)

11 Mark the apex line & seam line lengthwise on the bustline by adding 1/8" for ease (0.3cm) (Fig 7)

Fig 9



DRN2242H9

TASK 2 : Draping Instruction of front

- 1 Take one piece of fabric 5 inches longer than the neck to waist on the form. 5 inches wider than the center front to side seam.
- 2 Pin the fabric on the form and draw a cross grain line near the middle of the fabric.
- 3 The form across the bust line and mark the bust point.
- 4 Pin the fabric at the bust point, the center front waist, neck and apex points(Fig 1)

Fig 1



- 5 Drape the waist dart. Clip the fabric at the princess line near the waist line. (Fig 2)

Fig 2



- 6 Pin at the side seam and center front waist points.
- 7 The fabric is falling from the side seam arm plate and hand straight down.
- 8 Smooth the fabric at the waist over from the center front waist.
- 9 Pin at the princess line. (Fig 3)

Fig 3



- 10 Smooth the fabric from the side seam waist to the princess line/waist point.
- 11 Extra fabric should form the front waist dart. Fold excess and pin it. (Fig 4)

Fig 4



12 Pin at the side seam arm plate and smooth the fabric up. (Fig 5)

Fig 5



13 Trace the side seam, waist seam and neck ling using by pencil.

14 Clip the fabric at the neck line and smooth.

15 Pin at the shoulder arm plate point and neck point another dart on the princess line.

16 Pin it and mark the arm plate screw. (Fig 6)

Fig 6



17 Mark each dart ends and leg. (Fig 7)

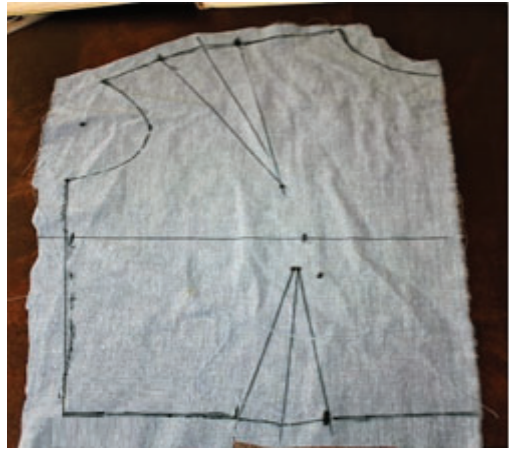
Fig 7



18 Draw a rough lines using by ruler on the dress form

19 Draw the dart ending at the bust point the cross grain line and the same at the bottom of the dart legs. (Fig 8)

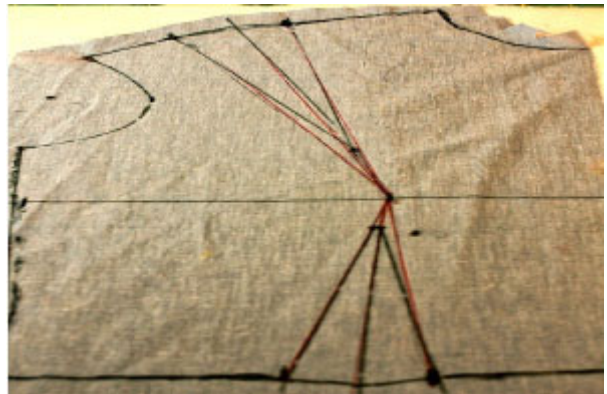
Fig 8



20 Iron the fabric pattern and tape it to the paper.

21 Trace the pattern lines on the fabric using tracing wheel. (Fig 9)

Fig 9



22 Remove the fabric and draw a line on the impressed paper using pencil and ruler.

23 Move the shoulder dart and cut the center of both darts and touching the bust point. Square the edge of the pattern. (Fig 10)

Fig 10



24 Make a mark 1" inch under the armhole and $\frac{1}{2}$ " inch out from the side seam 25. Redraw a armhole add $\frac{3}{8}$ " inch seam all around the pattern. (Fig 11)

Fig 11



25 To finish the dart.

26 Need to fold the dart closed and cut along the seam line at the waist. (Fig 12 to 14)

Fig 12

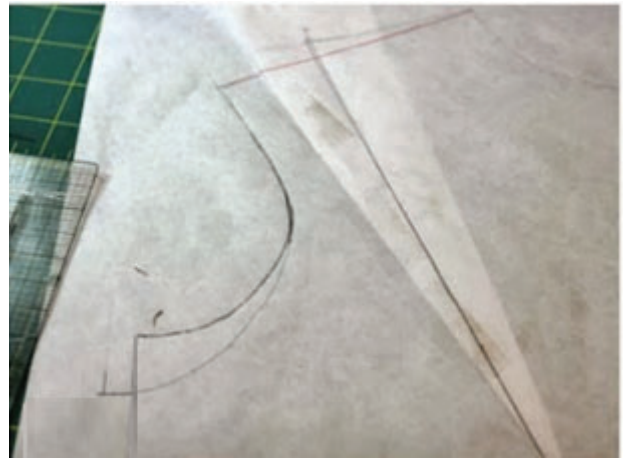


Fig 13

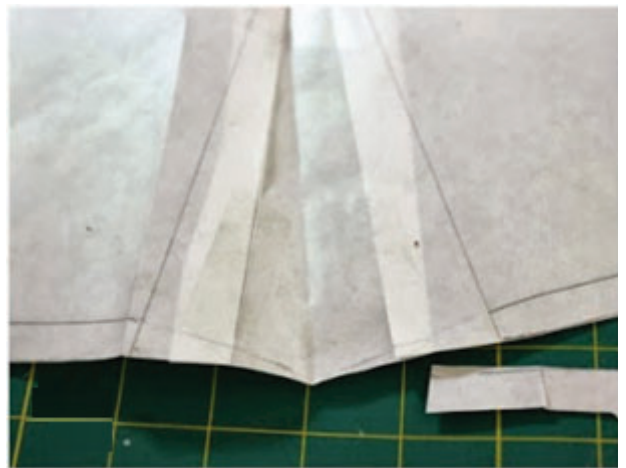
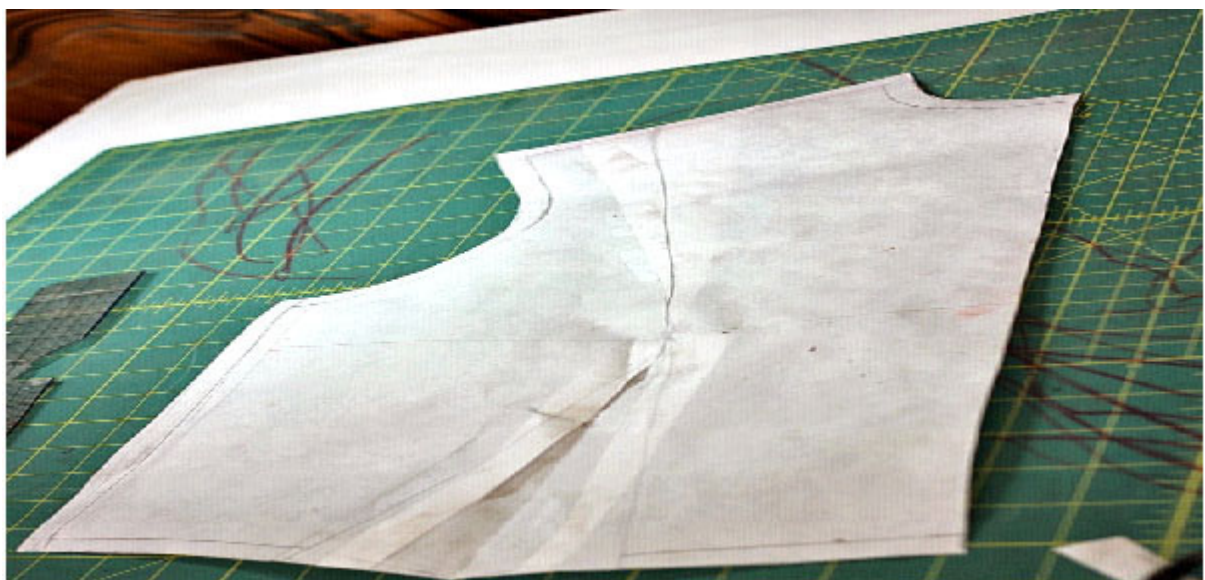


Fig 14



The basic measurements you should take for Adaptation

Fig 1

A - B = Length + 2"
A - C = Neck Width (minimum 3" or as per table)
C - D = Front neck depth (minimum 3" or as per table)
A - K = 7.5" for adults minium (Or as per table)
A - F = 1/2 of shoulder to shoulder + 1/4 inch
F - L = 3/4 inch
K - N = 3/4 inch
E - G = 1/4" bust round + 1/2 inch
P - H = 1/4" waist round + 1/2 inch
B - M = 1/4" hip round + 1/2 inch
Add 1 inch seam allowances along G - P - M
A - B = Length + 2"
A - C = Neck width (minimum 3" or as per below table)

Bust Measurement	Neck width (inches)	Neck depth (inches)
20	2	4
22	2	4
24	2 1/4	4
26	2 1/4	4 1/2
28	2 1/2	5
30	2 1/2	5 1/2
32	2 1/2	6
34	2 3/4	6 1/2
36	2 3/4	7
38	3	7
40	3	7
42	3	7

- Neck depth (this is how deep you want the neck to be – Mark the front neck depth and back neck depth); – Mark from C to the line A-B. Front neck depth can be taken as per the above table, Back depth depends on your preference

- $F-L = 3/4$ inch ; this is for shoulder slope From point – F on shoulder tip mark down $3/4$ inch to point L (please make this $1/2$ inch for kids) Give the shoulder slope by joining the line C-L.
- $K-N = 3/4$ Inch
- Mark A-E which is the armhole depth or the bust line – as per table or 7.53 for adults. This is the bust line. E-G is marked on this line.

- Another measurement for armhole line is to calculate it by the bust round.
- Armhole depth = Bust round divide by 8 plus 3.5 inches.

Bust measurement inches	Armhole depth
26	6 1/4
28	6 3/4
30	6 3/4
32	7
34	7 1/4
36	7 1/4
38	7 1/4
40	7 1/2
42	7 1/2

Another measurement for a more fitting armhole

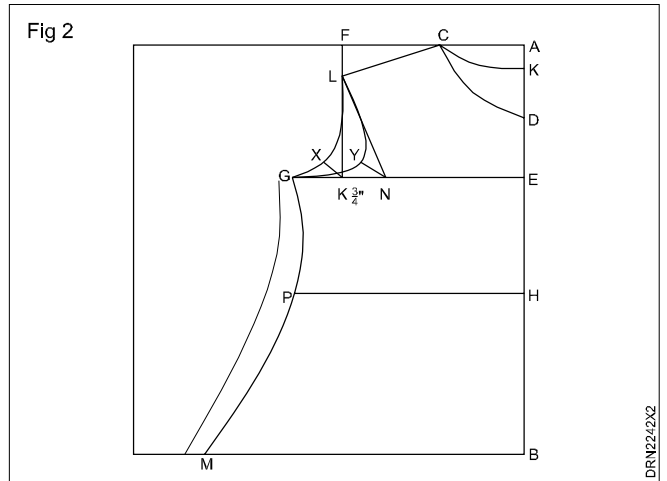
Bustround	Armhole measurement fitting
28 inch	4 3/4"
30 inch	5
32 inch	5 1/4"
34 inch	5 1/2"
36 inch	5 3/4"
38 inch	6"
40 inch	6 1/4"
42 inch	6 1/2"
44-46 inch	7"
48-50 inch	7 1/2"

- Draw straight line down from F so that it intersects with line E-G .
- $E-G = \frac{1}{4} * \text{bust round} + \frac{1}{2} \text{ inch ease}$
(i.e if my bust is 36 inches, that divided by 4 is 9. Add $\frac{1}{2}$ inches ease which will be 9.5 inches ; seam allowance of 13 should be added later)
- $A-H = \text{Waist length}$
- $P-H = \frac{1}{4} * \text{waist round} + \frac{1}{2} \text{ inch}$
- $B-M = \frac{1}{4} * \text{hip round} + \frac{1}{2} \text{ inch}$
- Add 1 inch seam allowance along G-P-M

Back armhole

- Where the lines from F & G intersected (name it K) go outside (measure the distance between G& K and divide by two) .
- Mark the point as X .
- Make a curved shape of the armhole from L-X-G – this is the back sleeve line.

Fig 2



- To mark the front sleeve line Mark from K to the inside 3/4 inch for adults and 1/2 inch for kids. Mark this point as N .
- Draw up a straight line to L . From N Go outside 3/4 inches diagonally to Y as shown in the diagram. L-Y-G is the front armhole line
- Draw a soft curved line touching Y from L to G – This is the front sleeve line.
- Ease – I have added 2 inch ease to the body measurements .
- You can alter this to your preference as per the standard chart of ease given below

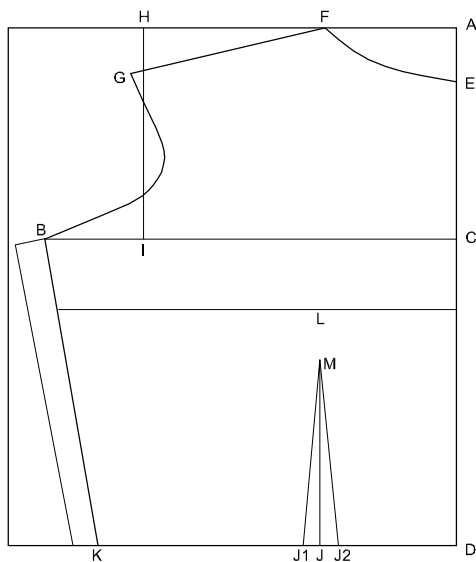
Fit of the garment Extra to be added to bust ,
waist and hip measurements

Tight fitting	Add extra -5 to -10 %
Close fitting	Add extra 0- 5%
Comfortable fitting ease	Add extra 7-10%
Loose fitting	Add extra 12-15%

Here is another bodice block with dart added.

- When making this pattern to sew tops is to draw directly on to the cloth with chalk.
- Both the front piece and the back piece will be kept folded .
- Draw the pattern on the top piece (which finally will turn out to be the front piece), cut out the back sleeve line and neck, remove the back piece (which is the back piece now) ,
- Continue cutting the front sleeve line and neckline on the remaining cloth with the marking lines already there.
- This way, no need to mark the front and back bodices separately.
- Cut the two pattern pieces and makes sure that the lines drawn are all cut away.
- Do the same for the back neck and front neck.
- Join the shoulder seams.
- Join the sleeves.

Fig 3



$B-C = 1/4$ of bust round

$A-F = 1/12$ of bust round

$A-C = 1/4$ of bust round - 1.5 inch

$A-H = 1/2$ of shoulder to shoulder + $1/4$ "

Shoulder slope = $1/2$ "

$D-K = 1/4$ of waist round + 2.5"

$D-J = 1/12$ of bust round

L - Nipple point at bust level

Dart width at J = 1.5 inch

$K-D = 1/4$ of waist round + 2" (ease + dart) seam allowance extra at B-K = 1"

DRN2242X3

Fig 4

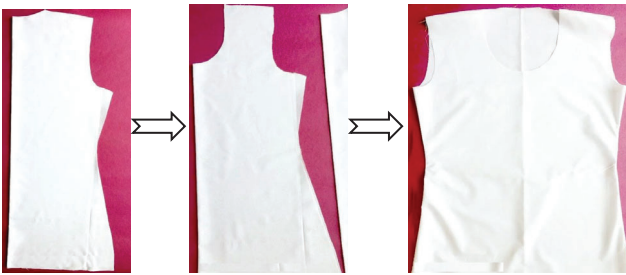
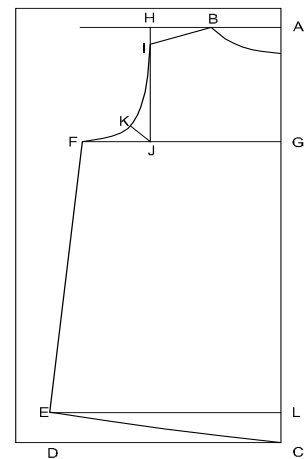


Fig 6



DRN2242X6

Fig 5



- Add this to a skirt to make a dress or adopt different design features to make it your own.

$A-C =$ Length of the top (Fig 6)

$A-B = 3 \frac{1}{2}$ "

$A-G = 8 \frac{1}{4}$ "

$H-J = A-G$

$H-I = 3/4$ "

$D-E = 33$ (OR 43)

$A-H = 1/2$ of shoulder point to shoulder point + $1/4$ "

$G-F = 1/4$ of Bust round + $3/4$ "

$E-L = 1/4$ of Hip round + 2 "

$K-J = 1/2$ of F-J

If want a more fitting pattern with a close body fit you can add darts, this will ensure that the bodice fits the contours of your body

Fig 7

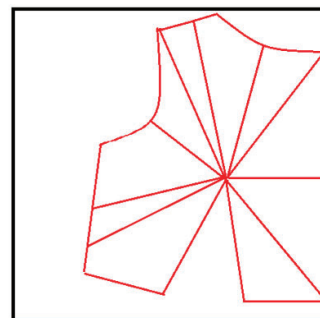
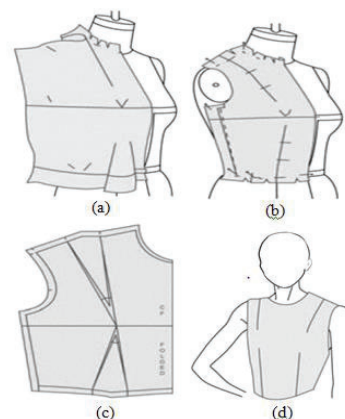


Fig 8



Estimate cut and construct dress for ladies dress

Objectives: At the end of this exercise you shall be able to

- draft and cut a kameez with princess line
- sew a kameez
- draft and cut a salwar
- sew a salwar.

Requirements

Tools/Equipments/Instruments

- Cutting table - 1 No.
- Measuring tape - 1 No.
- Meter scale - 1 No.
- Scissors - 1 No.
- Cello tape - 1 No.
- Marking chalk - 1 No.

Materials

- Plain design fabric - 10 m.

- Plain design one side fabric - 10 m.
- One way fabric - 10 m.
- One way one side fabric - 10 m.
- 165 X 0.92 cm poplin, cotton, satin - 1No.
- Matching colour thread - 1No.
- Needle - 1No.
- 6 buttons - 1No.
- 165 X 0.92 cm poplin, cotton, satin - 1No.
- Canvas - 1No.

Draft and cut a kameez with princess line

Material: 235 cm x 92 cm poplin, cotton, any synthetic material

Measurements

Full length = 102cm

Chest = 86cm
Waist length = 72cm
Shoulder = 34cm
Sleeve length = 12cm

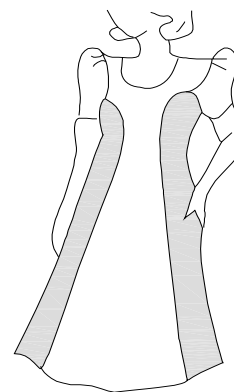
PROCEDURE

TASK 1: Draft and cut a kameez with princess line

- 1 Lay the brown sheet on the drafting table with its wrong side facing upwards.
- 2 Draw the drafting of kameez front and back body part and sleeve part on brown sheet. (Fig 1)
- 3 Give flare as show (Fig 1).
- 4 Draw sleeve on the folded brown sheet.
- 5 Use L-square and French curve / curve stick for perfect shape of drafting.

Measurements	Material
Princess line	Cut components of princess line
Leg-o-mutton sleeve	Kameez
Back Zip open	Center front - 1
	Center back - 1
	Side piece - 4
	Sleeve - 2
	Placket piece - 2
	Facing piece - 2
	10 cm zip - 1
	Notcher - 1

Fig 1



Pattern cutting

Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instructions for preparing master pattern.

Center piece front = 1 - 24 - 19 - 21 - 18 - 22 - 12 - 11 - 13

Center piece back = 1 - 24 - 19 - 21 - 18 - 22 - 12 - 11 - 23



Scan the QR code to view the video for this exercise

Side piece front = 22 - 18 - 20 - 19 - 25 - 9 - 10 - 10b - 8 - 6 - 16 - 15 - 22

Side piece back = 22 - 18 - 20 - 19 - 25 - 9 - 10 - 10b - 8 - 6 - 14 - 22

Sleeve front line = 0 - 7 - 8 - 10 - 6 - 11 - 12

Sleeve back line = 0 - 7 - 9 - 6 - 11 - 12

Master pattern

- 1 Add the following allowances to cut paper pattern components for seam allowances and turnings.

Instructions for master plan		
Center piece	Side piece	Sleeve
Front and back	Front and back	Top - 1cm
Neck and armhole	Armhole 0.75cm	Side - 2.5cm
Shoulder - 1cm	Princess line 1cm	Bottom - 2cm
Sides - 1cm	Side - 2.5cm	
Bottom - 2.5cm	Bottom - 2.5cm	

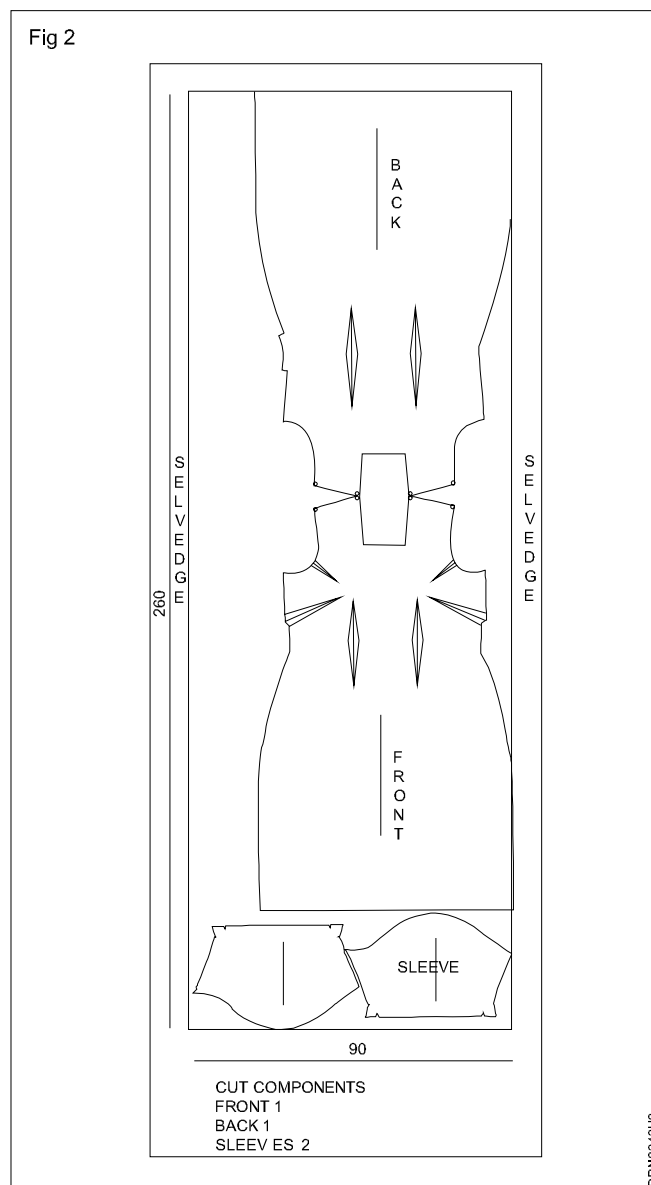
- 2 Cut the excess brown sheet to get the master pattern of kameez with princess line.
- 3 Mark and cut notches on the seam allowances and folding.
- 4 Name the cut components for future reference.

Layout and cutting

- 1 Lay the fold fabric on width on the cutting table with their wrong side facing upwards.
- 2 Arrange the master pattern of princess line kameez economically without wasting the material. (Fig 2)
- 3 Mark the outline of all the kameez components as lay using a marking chalk.
- 4 Mark the back open position at back center piece on the fabric.

- 5 Remove the master pattern. Transfer the mark to the lower layer of the fabric.
- 6 Cut the components and pin all the layers together.

Fig 2



TASK 2: Sew a kameez

- 1 Join center and sidepieces at the princess line with princess seam.
- 2 Finish the front neck with facing.
- 3 Finish the back open with zipper placket.
- 4 Stitch zipper placket with the use of zipper foot machine attachment.
- 5 Finish the back neck with facing.
- 6 Join front and back shoulder together in the wrong side.
- 7 **Prepare leg - o mutton - sleeve:** Make two rows of case stitches at upper sleeve shape, 1st at a distance of 0.5cm, 6-7cm from the raw edge and stop also 6-7cm before the other edge. Leave long threads.
- 8 Pin the center of sleeve crown on shoulder, with right sides together and leaving seam allowance.

Take care that front sleeve and front bodice match.

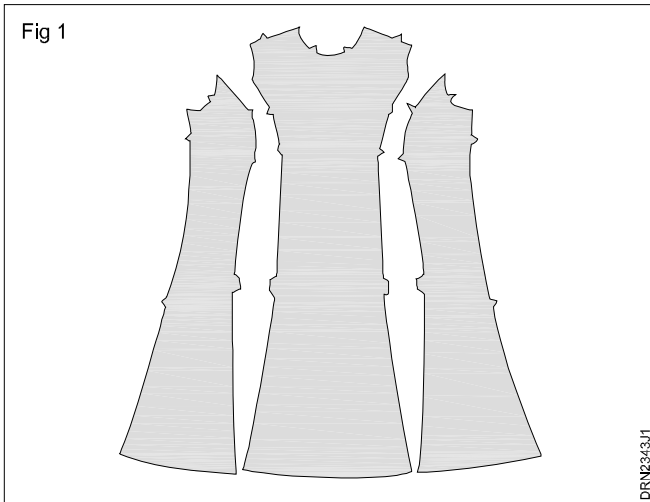
- 9 Gather on sleeve crown on both sides of shoulder seam while pulling the long thread ends from both sides.
- 10 Pull until the girth of sleeve is equal with the girth of armhole.
- 11 Baste sleeve to bodice armhole, then stitch with machine.
- 12 Finish the sleeve bottom by turning and stitch it.
- 13 Join from sleeve bottom side to front and back sides together with seam allowance leaving slit opening on both sides on marks.
- 14 Finish the slit If slit is not necessary the stitch the front and back sides up to the bottom.

Skill Sequence

Princess seam

Objective: This shall help you to
• **join princess cutting line.**

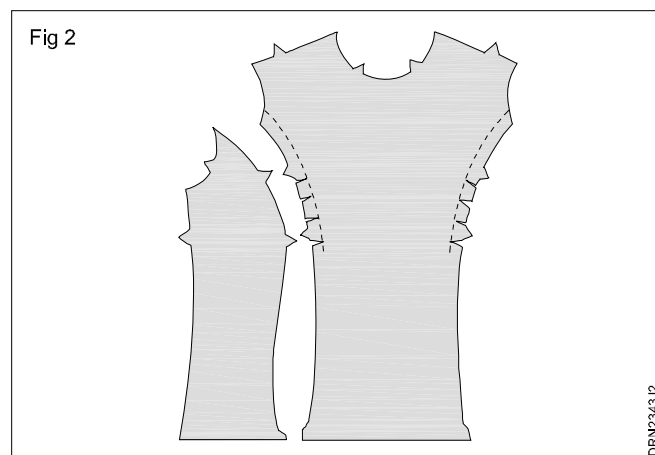
Princess seams (Fig 1)



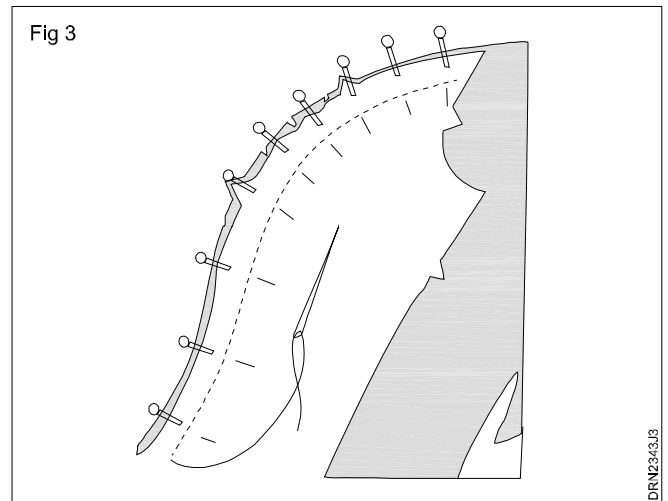
Princess seams are shaped seams designed to fit the body's contours. Beginning at shoulder or arm-hole, front or back, and running lengthwise, they may go just to the waistline seam or extend all the way to the hem. A typical princess seam will curve outward to accommodate the fullest part of the bust or back, then inward to conform to the waist, and finally outward again to fit over the hips.

Careful checking of fit, pattern adjustments and marking are necessary if the curves of the seam are to follow the contours of the body. Proper use of clipping and notching will permit the curves to lie smoothly against the body. Pressing should be done over a tailor's ham: its rounded shape helps to retain and mould curves as seam is pressed.

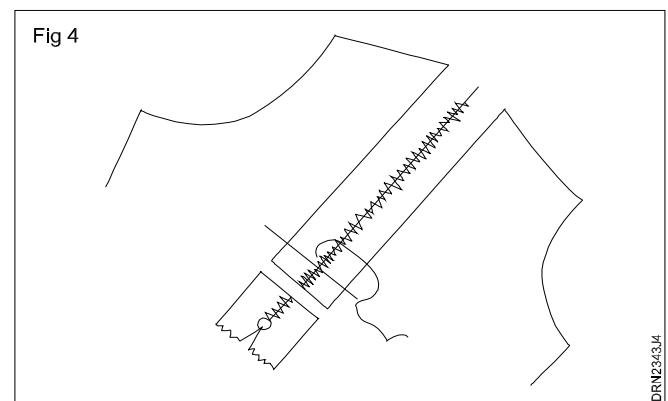
- 1 Place a row of reinforcement stitches just inside the seam lines of the centre panel. From the top edge to just below bottom notch. Clip between notches. (Fig 2)



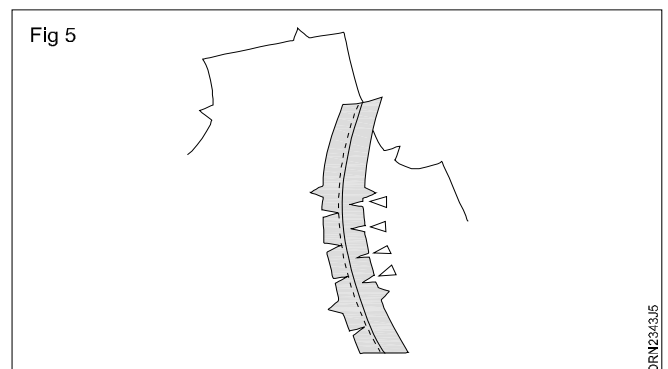
- 2 With side panel on top. Match and pin the seam line spreading the clipped edge to fit. Make additional clips if necessary, Tack in place. (Fig 3)



- 3 With clipped side up stitch on the seam line beyond the ends of the clips being careful to keep the underside smooth. Backstitch at both ends of seam. (Fig 4)

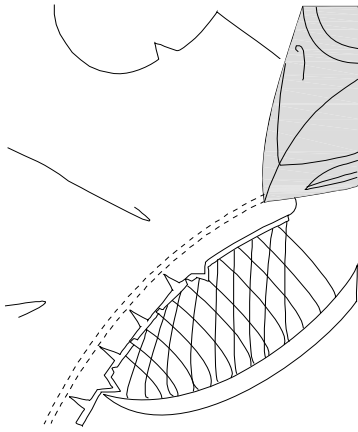


- 4 Remove tacking and finger-press the seam open. Notch out fullness from the inward curve. Wherever possible, stagger positioning of clips and notches. (Fig 5)



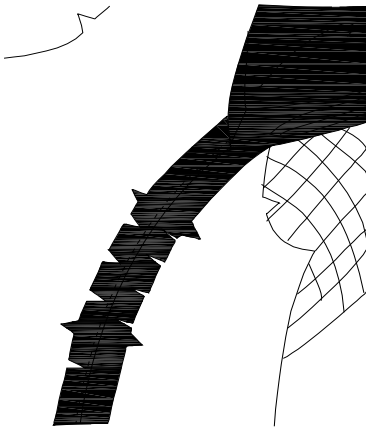
- 5 Close seam and place over a tailor's ham. With tip of iron, press seam flat. Do not press into the body of the garment, especially in the curved areas. (Fig 6)
- 6 Press the seam open over a tailor's ham. Reposition the seam whenever necessary to keep the curve of the ham matched to the curve of the seam. (Fig 7)

Fig 6



DRN23/3.6

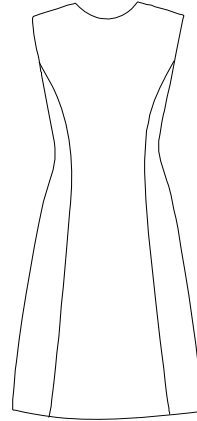
Fig 7



DRN23/3.7

- 7 Every princess seam consists of two separate edges curved in a precise relationship to each other. When joined, the seam shapes itself around the contours of the body. An entire dress front, as illustrated above and at left, will have a centre panel and two identical side panels, together producing a princess seam on each side of the garment front. Transfer all markings carefully to fabric before removing pattern. (Fig 8)

Fig 8



DRN23/3.8

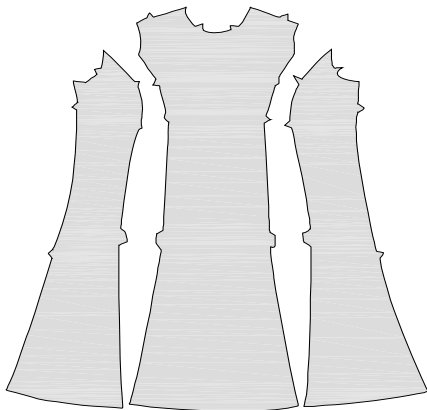
Zipper placket

Objective: This shall help you to

- **stitch a zipper placket.**

- 1 Take the back part and take a zipper of 10cm length. Mark 10cm for slash on the centre line from right side of the cloth. Cut a strip of 13*5cm (length of strip should be 3cm more than the zipper length).
- 2 Fold and press strip on the centre. Match the centre line of strip with back part with the right sides together. Baste on the slash mark through both the layers and all around the strip edges. (Fig 1)

Fig 1

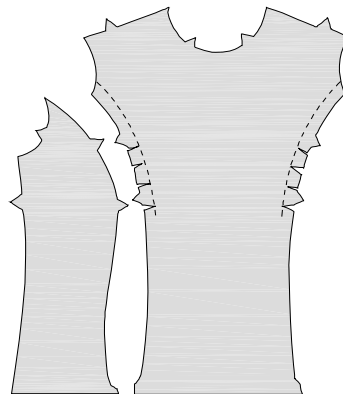


DRN23/3M1

- 3 Stitch from left side round the slash mark at a distance of teeth width plus 2cm. Slash on slash mark, stop 1cm

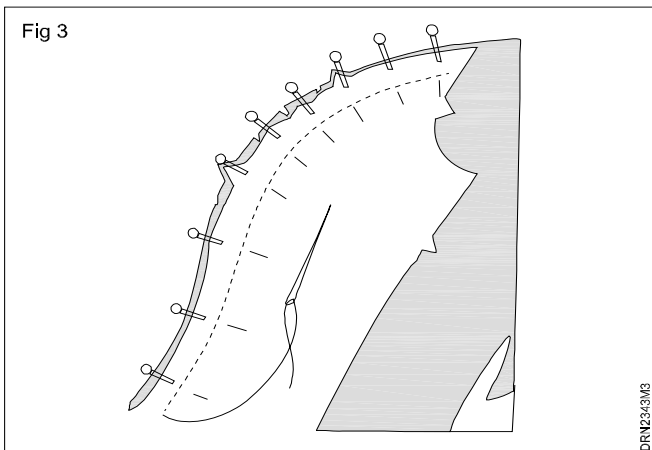
before the end and clip to the corners. Remove the basting (Fig 2)

Fig 2

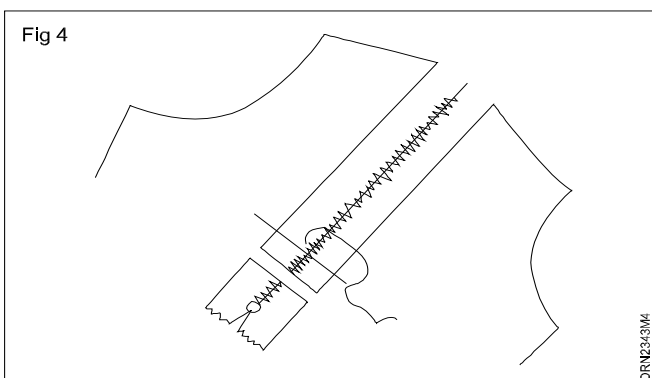


DRN23/3M2

- 4 Turn the strip pieces towards wrong side of the back part. Press and fix with basting. Set the zipper on slash line. Baste zipper below the slash edges and stitch all around. (Fig 3)
- 5 How to adjust the zipper length? Zips are available in different length, but they will not always match the required slit length of the placket. In that case you have to use a zipper longer than the placket length and to shorten it.

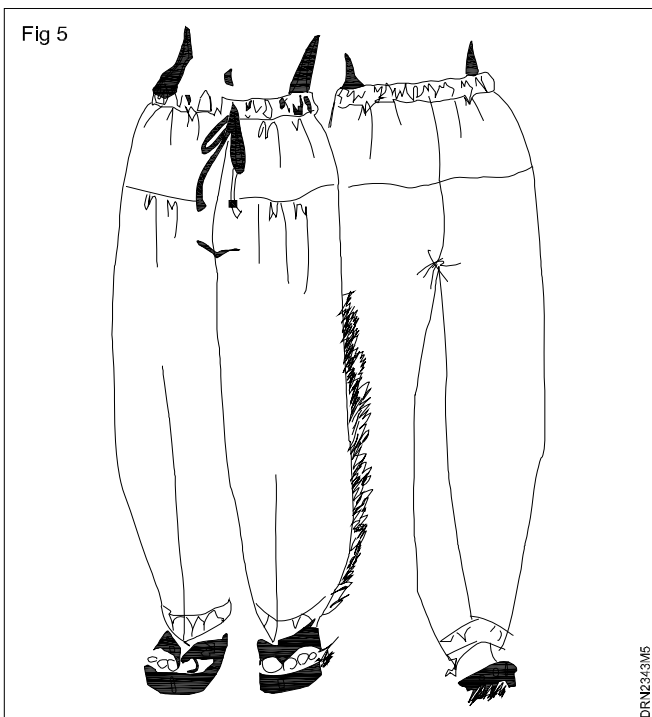


6 Shorten zipper at the lower end. Tack at the required length and trim zipper 1.5cm below tacking. (Fig 4)



Draft and cut a salwaar

- 1 Lay the brown sheet on the drafting table.
- 2 Draw the drafting of side panel and centre panel of salwar with waistband on the brown sheet, using measuring tape and L square. (Fig 5)



Paper cutting

Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instruction for preparing master pattern with paper cutting scissor.

- Waist belt = 0 - 8 - 9 - 2
 Centre panel = 2 - 3 - 4 - 1
 Side panel = 3 - 4 - 7 - 6 - 5 - 3

Master pattern

- 1 Add the following allowances to the cut paper pattern components for seam allowance and turnings.

Instruction for master pattern

- Belt waistline for down casing - 5cm
 All other sides - 1cm

- 2 Cut the excess brown sheet to get the master pattern of salwar with waist band.
- 3 Mark and cut notches at centre of centre panel.
- 4 Name the cut pattern components for future reference.

Layout and cutting

- 1 Lay the fabric on the cutting table on with wise folding with wrong side facing.
- 2 Arrange the master pattern of salwar width waist band economically without wasting the fabric.(Fig 6)
- 3 Mark the outline of all salwar with waist band components as layed with marking chalk.
- 4 Remove the master pattern.
- 5 Cut along the marking line with sharp shears.
- 6 Pin all the layers of components together for stitching.

Drag and cut a salwar	
Measurements	Material
Full length = 100 cm	2.46 x 0.90m poplin/terycot
Hip = 100 cm	
Bottom = 38 cm	

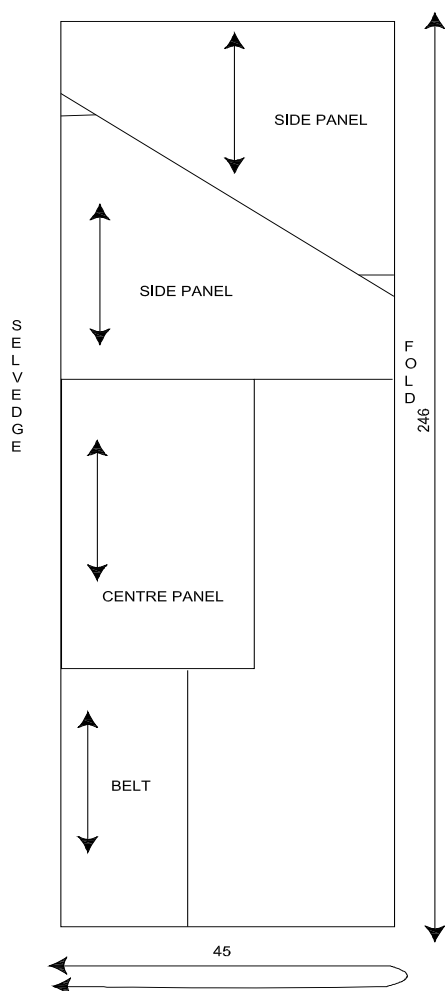
Sew a salwar

- 1 Check the machine is ready to stitch. Wind the material color thread in the bobbin and thread the machine.
- 2 Stitch on the rough cloth to check the seams.
- 3 Join straight sides of side panels with centre panel for both leg parts.
- 4 Make bottom cuff with stiffening.
- 5 Make ease stitches, 1 cm below upper edge of stitched leg pieces.
- 6 Match centre front and centre back of leg piece and belt.
- 7 Adjust the width of leg piece with belt piece by gathering the fabric between the marks.



Scan the QR code to view the video for this exercise

Fig 6



Cut components
side panel - 4
Centre panel - 2
Waist Be - 2

DRN23-3M6

First gather, then pin belt to leg piece and set additional gathers for adjustment in the same operation.

- 8 Stitch with double seam.
- 9 Repeat the process for other leg.
- 10 Stitch inside leg lengths.
- 11 Join crotch by double seam.
- 12 Finish by making fold-down casing at top of belt.
- 13 Prepare a tying string of 1- 1.5 cm width from balance material. Length of string must be at least 15cm longer than belt girth.
- 14 Press the garment.

Style Features	Material & Trimming
Gathered waist belt Decorated bottom Tape	Cut components of salwar with wait band Side panel 4 Canvas 0.05 x 0.90 m Centrepanel 2 Matching color thread Belt 2 Machine needle No: 16 Tape cloth Bottom cuff 2

Estimate cut and construct dress for ladies suit

Objectives: This shall help you to

- draft and cut a surwar
- sew a surwar
- draft and cut a umbrella with yoke kameez
- sew a kameez.

TASK 1 : Draft and cut a surwar

Measurements	Material
Full length = 105cm	2.00 x 0.90 m
Hip = 100cm	Poplin / Terycot
Kneeround = 41cm	
Calfround = 38cm	
Bottom round = 30cm	
Gathering (churi) = 15cm	

Style features	Material & Trimmings
Bias cutting	Cut components of surwar
Gathers (Chori) at bottom	Leg part 2
Tape	4 hooks
	Trimming scissor.

Fig 1



DRN23/301

Paper pattern drafting

- 1 Lay the brown sheet on the drafting table
- 2 Draw the drafting of front and back part of surwar on the brown sheet, using measuring tape L square.

Paper cutting

Cut the prepared paper pattern along the following cutting lines, leaving spaces as specified in the instruction for preparing master pattern with paper cutting scissors.

Fronts and back = 0 - 8 - 6 - 14 - 9 10 - 11 - 12 - 1

Master pattern

- 1 Add the following allowances to the cut paper pattern components for seam allowance and turnings.

Instruction for master pattern

Crotch line = 1.5 cm

Inside leg seam = 2 cm

Fold-down casing on waist = 5 cm

Bottom for hem = 2 cm

- 2 Cut the excess brown sheet to get the master of surwar.

- 3 Name the cut pattern components for future reference

Layout

Use the given measurement and estimate the material required by following the formula for calculation (width of cloth = 0.90m)

Material required = Length of bag * width of bag

Half width of cloth

Length of bag = Full Length + bottom turning + casing turning + churi

Width of bag = Half hip + half knee round + two seam allowances.

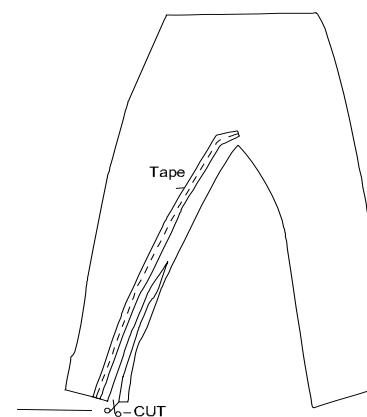
TASK 2 : Sew a surwar

- 1 Prepare the bias bag and layout the components. Mark and cut the cloth.
- 2 Stitch inside leg length with taped seam giving 1cm seam allowance.
- 3 Taped seam is specially placed on stretch material and on bias joints to prevent stretching and breaking of seam thread.
- 4 Take a piece of selvedge or tape in straight grain. Place the fold of tape exactly on the inside leg seam line, then stitch a straight on the line cut the excess length of the tape and trim seam allowance. (Fig 1)

While stitching do not stretch the material.

- 5 Turn bottom with narrow hem (less than 1cm)
- 6 Join crotch by double seam
- 7 Prepare fold-down casing

Fig 1



DRN23/301

- 8 Trim the excess threads
- 9 Stitch hooks & eyes at bottom slit or tack press buttons
- 10 Finish and press the surwar.

Bias bag

Objective: This shall help you to

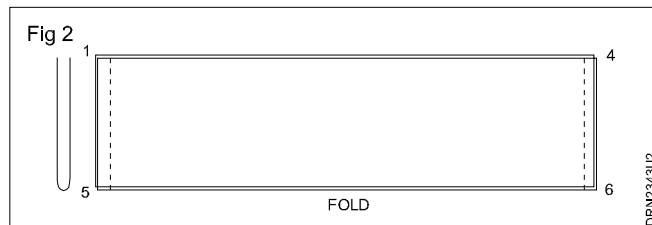
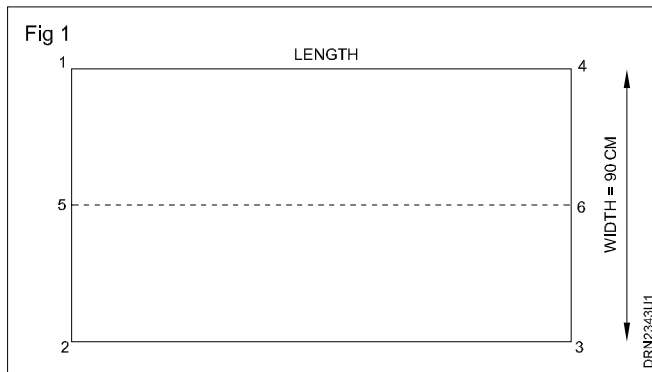
- prepare the bias bag, to layout, mark and cut the cloth.

1, 2, 3, 4 is the material for bag. 1 - 2 is the width and 1 - 4 is the length of cloth. (Fig 1)

Fold the material center in length i.e. at point 5 - 6. By this we get the size 1, 4, 6, 5 (Fig 2)



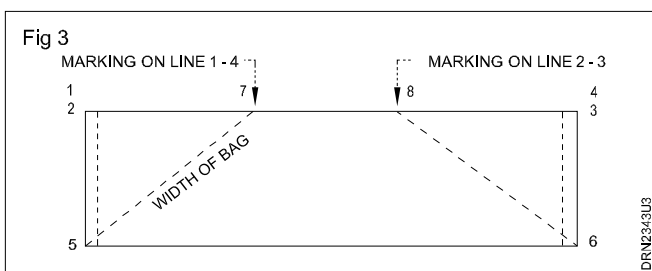
Scan the QR code to view the video for this exercise



To adjust the width of bag, take

$$H/2 RB/2 + 2\text{cm}$$

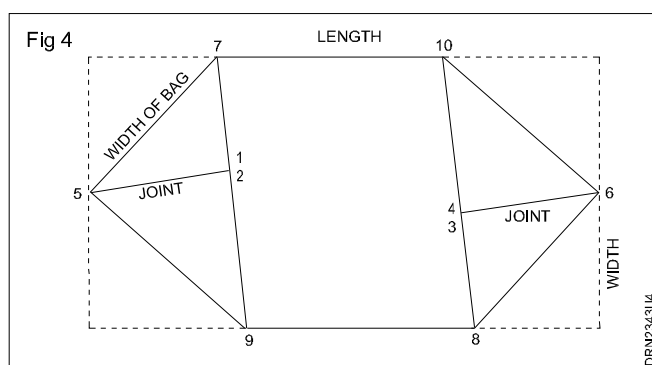
On line 1 - 4 measure from 5 and mark 7. 5-7 = width of bag (Fig 3)



On line 2 - 3 measure from 6 and mark 8.

$$p \quad 6-8 = 5-7 = \text{width of bag}$$

Fold the piece at 7 and 8. (Fig 4)



After that procedure open edges are on 7 - 9 - 8 - 10. Start stitching from 10.

Join 10-8-9 with 10-7-9 (stitching along the selvage) take a cut at 5 and open up to 7, i.e. on width of bag. Repeat for other end of width (6-8). Now you have prepared a cylinder.

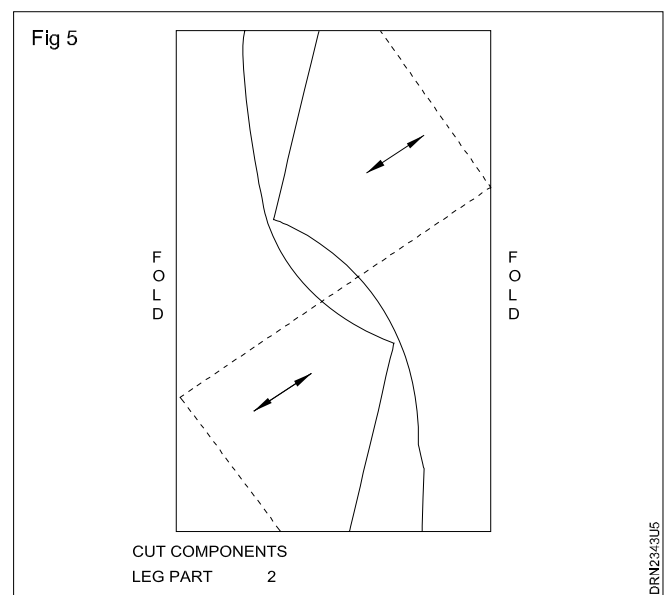
Fold the brown paper lengthwise, cut along the outer lines of draft, so you get two copies of the pattern for layout. Mark notches for fold-down casing, bottom hem and seam

allowance. Roll the cylinder and lay the pattern on bias bag in such a way that the maximum joints are placed above knee, i.e. on upper side.

Stitch at 1 to 5 and 4 to 6, allowing 1 cm seam allowance by double stitching.

To find the right placement of the cylinder you have to try; roll the cylinder and place the pattern. If the placement still is not proper try once more.

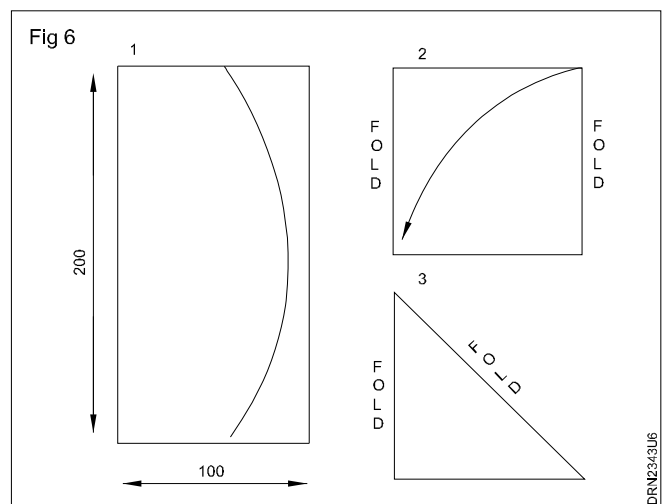
After finding the right position of cylinder make the cylinder flat, take care that no wrinkles are there. The paper pattern has to be placed in opposite direction the straight part of the pattern has to be placed at the long folded side of the bias bag. (Fig 5)



The next two graphics show another type of layout which can be used only on bigger width: the material required is 2.00 x 1.00 m.

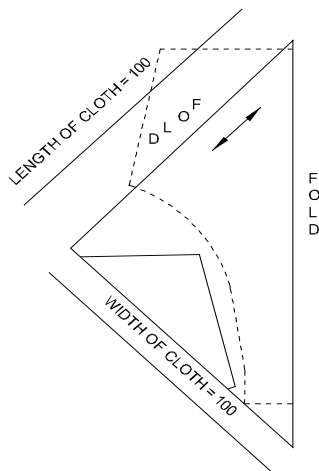
The advantage of this layout is: there are no joints in leg pieces, so it is more comfortable to wear. Leg seams also keep in position, even after several washings.

Fold the fabric twice. (Fig 6)



Layout as shown. (Fig 7)

Fig 7



DRN2343U7

Note: While stitching the triangular leg pieces take care to join them selvages together and widths together.

To reduce the bulk of material on waistline, the churidhar can also be stitched with belt, similar as in Salwar.

Estimate cut and construct dress for ladies suit (Khameez)

Objectives: This shall help you to

- draft and cut a kameez (Umbrella with yoke style)
- sew a kameez (Umbrella with yoke style)
- construct a faced placket
- prepare a circular hem.

Draft and cut a kameez (Umbrella with yoke style)

Measurements	Material
Full length = 105cm	3.76 x 0.92 m
Bust = 89cm	Cotton, poplin, synthetic material
Waistround = 75cm	
Shoulderwidth = 32cm	
Sleeve length = 16cm	
Bodice length = 37cm	

Paper pattern drafting

- 1 Lay the brown sheet on the drafting table.
- 2 Draw the drafting of body part, skirt part and sleeve part of umbrella with yoke on the brown sheet, using measuring tape and L square. (Fig 1)
- 3 Use L-square and French curve / curve stick for perfect shape of drafting.

Pattern cutting

Cut the prepared paper pattern along the following cutting lines, leaving space as specified in the instructions for preparing master pattern with paper cutting scissors.

Body part back = 11 - 10 - 13 - 5 - 9 - 8

Body part front = 12 - 10 - 13 - 5 - 9 - 8

Skirt part = 2 - 4 - 1 and 6 - 5

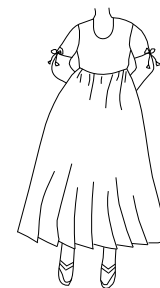
Sleeve back = 0 - 7 - 4 - 5 - 9 - 8

Sleeve front = 0 - 6 - 4 - 5 - 9 - 8

Master pattern

- 1 Add the following allowances to the cut paper pattern components for seam allowances and turnings

Fig 1



DRN2343V1

Instructions for master pattern

Body part :- Shoulder - 7.5cm

Armhole - 7.5cm

Neck - 0.5cm

Side seam - 2.5cm

Bottom - 1cm

Skirt part

Top = 0.75cm

Bottom = 3cm

Sleeve

Top = 5cm

Side seam = 2.5cm

Bottom = 0.5cm

- 2 Cut the excess brown sheet to get the master of umbrella with yoke.
- 3 Name the cut pattern components for future reference.



Scan the QR code to view the video for this exercise

Layout and cutting

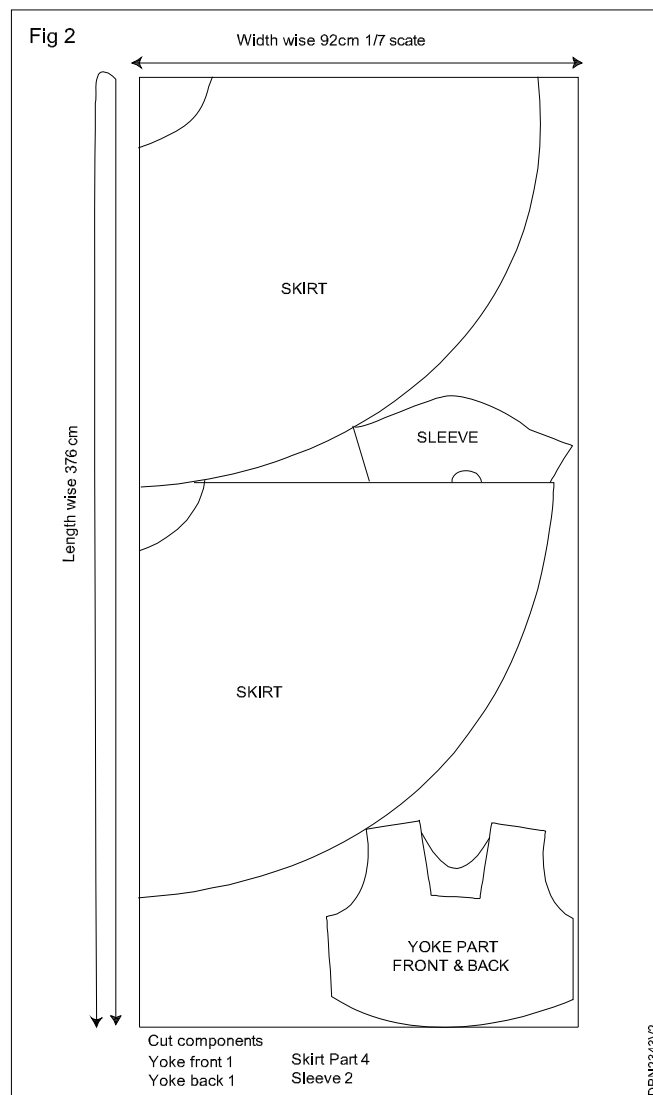
- 1 Lay the open fabric on the cutting table on length wise folding with wrong side facing.
- 2 Arrange the master pattern of umbrella with yoke economically without wasting the fabric. (Fig 2)
- 3 Mark the outline of umbrella with yoke components as laid with marking chalk.
- 4 Remove the master pattern.
- 5 Cut along the marking line with sharp shears.
- 6 Pin all the layers of components together for stitching.

Sew a kameez (Umbrella with yoke style)

- 1 Finish the front neck with shaped facing.
- 2 Finish the back neck with faced placket.
- 3 Join front and back shoulder.
- 4 Finish the sleeve bottom center round shape with binding.

Then stitch the bias binding on bottom from side to center and extend the bias strip to 10 to 15cm on both sides to tie the ends. Finish the raw edge with tube bells.

- 5 Stitch the sleeve side seam.
- 6 Join front and back yoke sides.
- 7 Set the sleeve on yoke with set in sleeve method.
- 8 Join umbrella skirt sides.
- 9 Finish the skirt bottom with 3cm wide circular hem.
- 10 Baste and stitch the skirt with yoke part matching centre and sides.
- 11 Stitch hook end eye on placket.
- 12 Finish the raw edges of seam allowance with over lock stitch.



13 Trim off thread end.

14 Finish and press the garment.

Faced placket

Objective: This shall help you to

- construct a faced placket.

Take the body part and facing cloth.

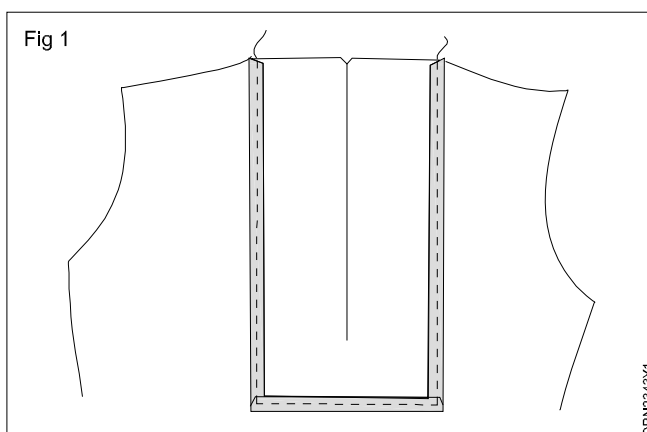
Draw 10 cm long lines on the right side of the body part and on the wrong side of the facing piece. Mark in the center of both

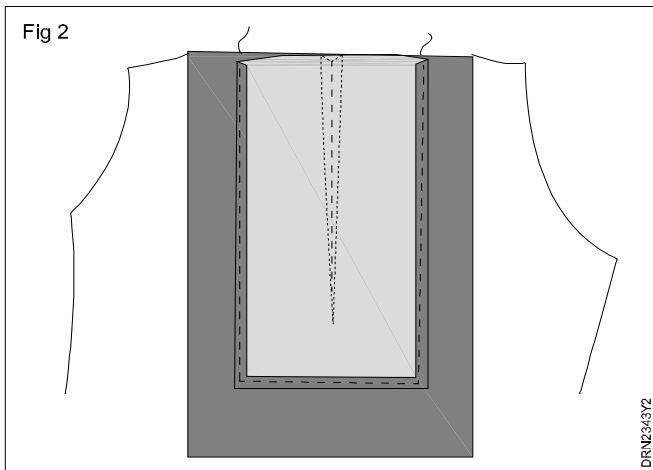
Turn the edge of facing by 1 cm and leave the top edge. (Fig 1)

Place facing piece on sample piece with right sides together. Match the centre line in v-shape.

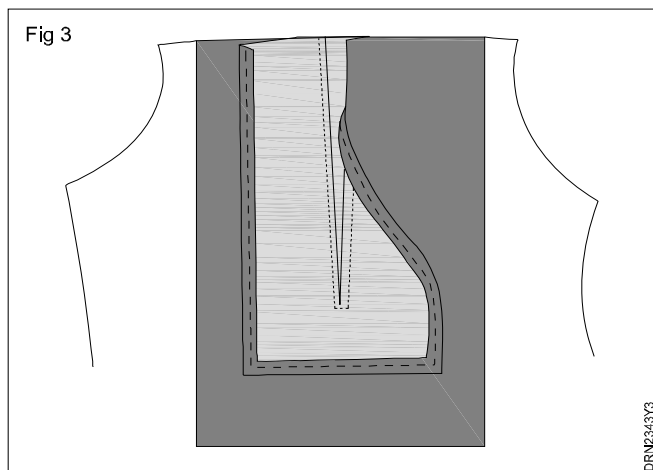
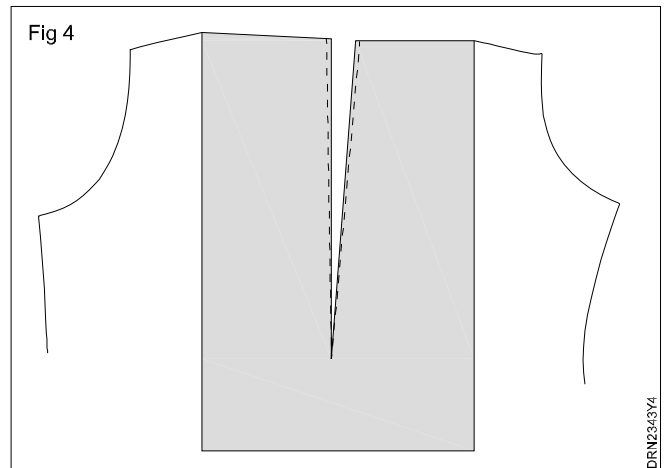
Stitch over the lines, which from v-shape. Start on top, stitch down to peak point, take 2 stitches horizontally and stitch back on other line upto top. (Fig 2)

Slash on the centre line leaving 2 mm at peak point. Turn the facing on the wrong side and press it gently to make out the edge (Fig 3)





Stitch top seam from right side on the edges of the placket outline (Fig 4) trim the ends of threads and press it.

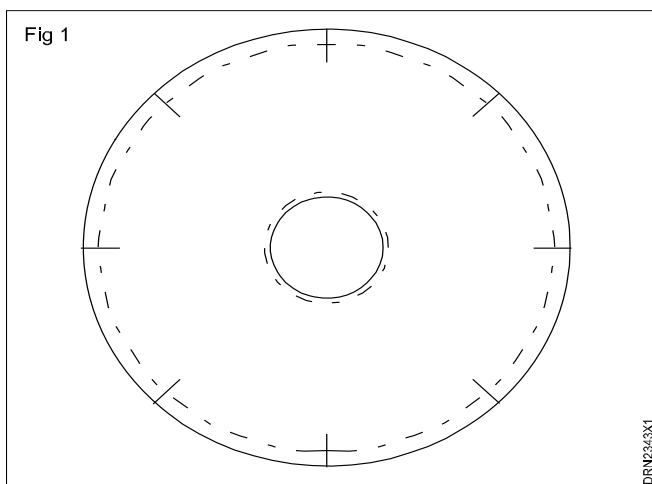


Circular hem

Objective: This shall help you to
 • **prepare a circular hem.**

To hem the flare of an umbrella-cut skirt in kameez you have to maintain the width of the bottom.

Divide the flare into 8 equal parts by folding. Set marks on bottom +6 cm long. Mark fold for hem ,3 cm from bottom edge. (Fig 1)

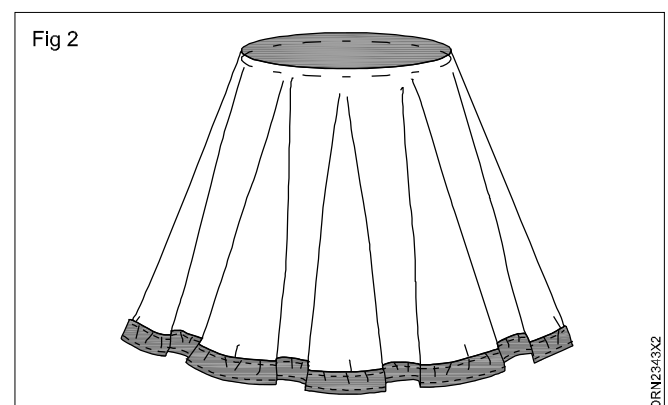


Fold the material by 0.5 cm (matching marks) and make ease stitch on folded edge.

Turn the raw edge 2.5 cm inside . match the marks of turned edge with marks of lower layer. In this way some gathers

will appear for the adjustment of girth. Pin in the middle of turning on all the marks. Slightly pull threads of easy stitching and distribute the material evenly to adjust the excess material. Baste and press on fold.

Baste the whole girth over turning (be careful the marks are matching). Remove pins and press. Hem with narrow hemming. Remove basting and ease stitches and press. (Fig 2)



Estimate cut and construct dress for ladies nightwear style I

Objective: This shall help you to

- draft and stitch a nighty.

Measurements	Material
Full length = 135 cm	3.50 x 0.90 m Rubia (Cotton)
Bust = 92 cm	
Across back = 38 cm	
Sleeve length = 26 cm	
INSTRUCTIONS FOR MASTER PATTERN	
Yoke	
neck	no allowance
shoulder	1 cm
armhole	0.75 cm
Skirt	
top	1 cm
armhole	0.75 cm
side and bottom	1 cm
Frill	
top and at side	1 cm
bottom	1.5 cm
Sleeves	
top	0.75 cm
side	?
bottom	1 cm

Reduce the sleeve length according to the length of lace.

Instructions for master pattern

Cut components

Front yoke piece	1
Back yoke	1

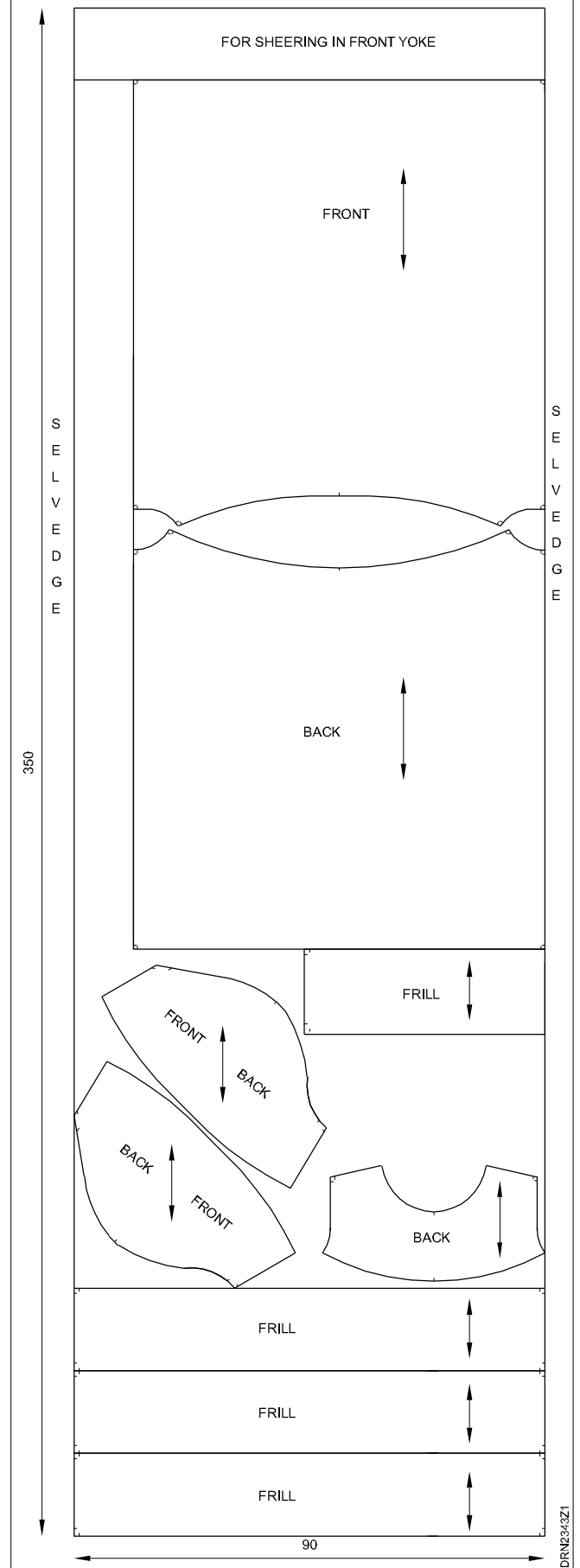
Skirt	2
Sleeve	2
Frill	4

- 1 Prepare master pattern.
- 2 Layout on cloth, mark and cut front yoke piece for preparing shirring (Length of front yoke piece = yoke length + 5 cm. Width of front yoke piece = approximately 2.5 times yoke - width + seam allowance).
- 3 Prepare the shirring piece and lay the front yoke pattern on it, mark and cut.
- 4 Join the front and back shoulders together.
- 5 Finish the neck line with binding.
- 6 Finish the yoke bottom with binding.
- 7 Cut lace 1½ cm longer than the round shape measurement of yoke.
- 8 Stitch the side seam of skirt.
- 9 Prepare the frill with gathers.
- 10 Set the gathers in frill according to the skirt girth. Baste skirt and frill together and stitch it.
- 11 Stitch another row of stitches on right side at the joint of frill and skirt.
- 12 Make gathers on the top of skirt in front and back according to the width of yoke.
- 13 Set and baste the bottom edge of yoke on right side of skirt gathers, take care that the balance marks match.
- 14 Stitch in the crevice of the first stitching of binding.
- 15 Finish sleeve bottom with lace.
- 16 Prepare and set the sleeves in armhole.
- 17 Finish and press.

Fig 1



Fig 1



Estimate cut and construct dress for ladies nightwear style II

Objective: This shall help you to

- draft and stitch a house coat with a shawl collar.



DRN0343E2

Measurements	Material
Length (waist to ankle) 60 cm	4.40 x 0.90 m
Full length (back) = 132 cm	Poplin/Terry fabric
Full length (front) = 135 cm	
Natural waist = 38 cm	
Chest = 92 cm	
Across back = 38 cm	
Across chest = 39 cm	
Sleeve length = 44 cm	

INSTRUCTIONS FOR MASTER PATTERN

Front and back

0.75 cm on outer shape at collar area, 1 cm on collar back

shoulder and armhole	0.75 cm
sides	2.5 cm
bottom	6 cm

Sleeves

top	0.75 cm
sides	2.5 cm
sleeve hem/turning	3 cm

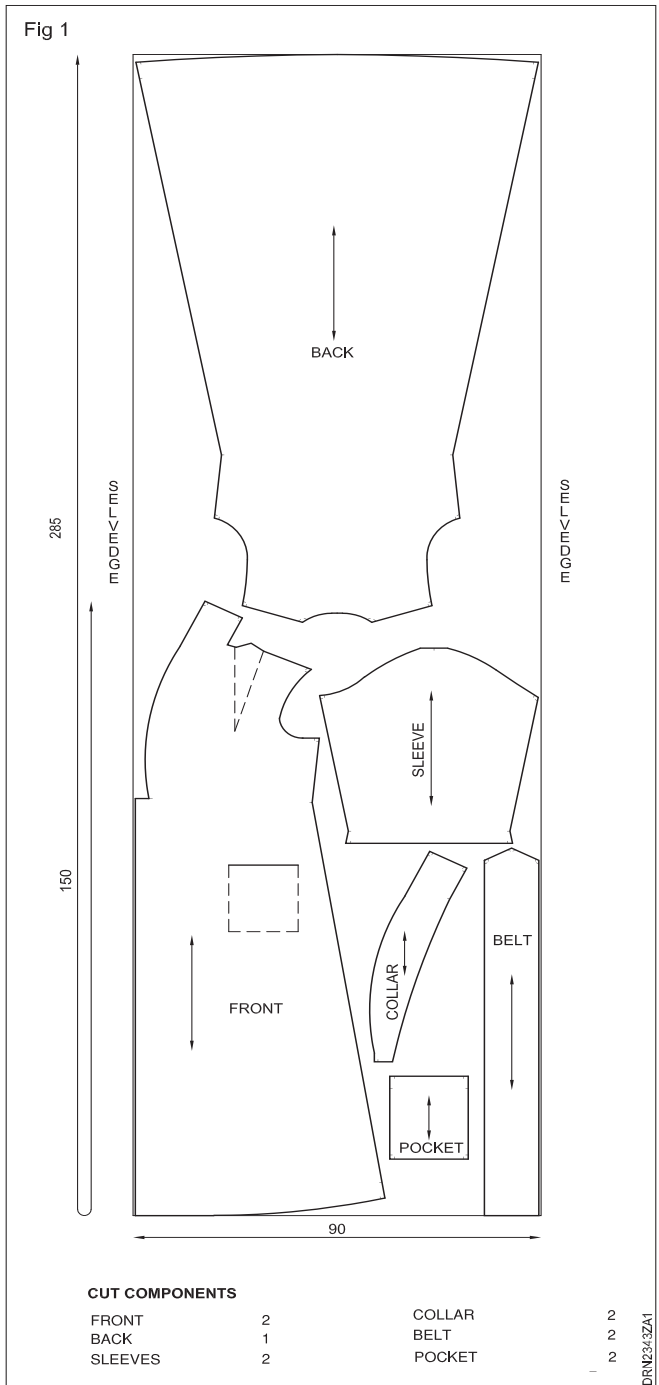
Pocket

sides + bottom	0.75 cm
pocket mouth	3 cm
belt	0.75 cm all around

Collar

0.75 cm at outer edge
1 cm at neck edge.

- 1 Prepare the pattern according to the pattern draft and the instructions for drafting. (Fig 1)
- 2 Layout the components on fabric and cut. (Fig 2)
- 3 Prepare patch pockets and attach them on both front sides.
- 4 Finish the shawl collar.
- 5 Stitch the side seams of house coat.
- 6 Stitch sleeves and attach them with set-in sleeve method.
- 7 Hem the bottom of house coat.
- 8 Prepare belt.
- 9 Finish and press.



Shawl collar

Objective: This shall help you to

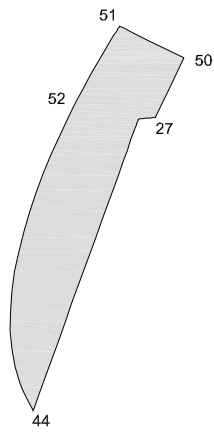
- prepare shawl collar.

In the shawl collar the upper collar, the lapel and the front facing are different parts in one piece of pattern. The under collar is part of the garment component, it is not a separate piece.

- 1 Prepare interlining piece. Copy the collar component pattern on brown paper, i.e. 27-50-51-52-44. Join 44-27. (Fig 1)
- 2 Add seam allowances for master pattern: 0.75 cm on outer round shape and 1 cm on collar back. Cut on double layer of the suitable interlining as per garment fabric. (Fig 2)

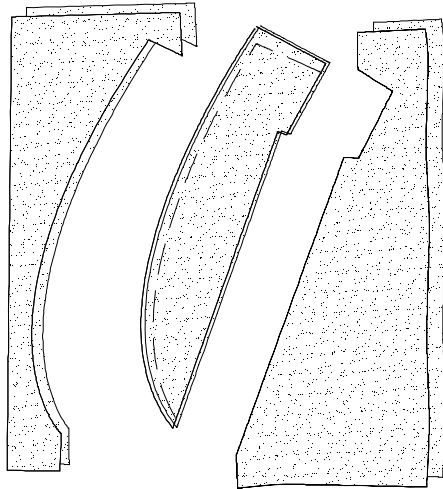
- 3 Cut 2nd pattern for shawl collar component consisting of upper collar, lapel and front facing (these 3 parts are called "upper collar"). Use master pattern created for interlining. Add 2 cm below peak, from there square out by 4 cm to the right add 1 cm from point 50 and 27 (see pattern) to the right. Join back neck parallel to 50-27, reshape upto the extension bottom. Cut "upper collar" from double layer of original cloth. (Fig 3) Stitch the shoulder dart on mark and trim out the excess material from dart width and press it towards neck.

Fig 1



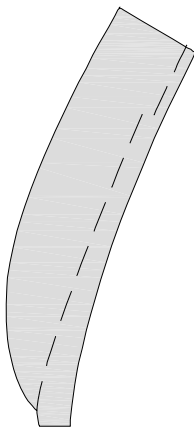
DRN23432B1

Fig 2



DRN23432B2

Fig 3



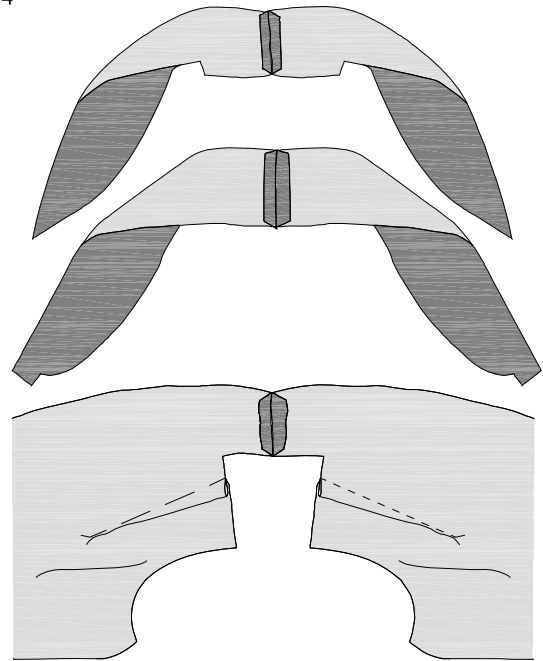
DRN23432B3

- 4 First join in centre back components of interlining (a), then of upper collar (b), then of lower collar in garment (c). (Fig4)

Take care to match the centre of collar and centre of back.

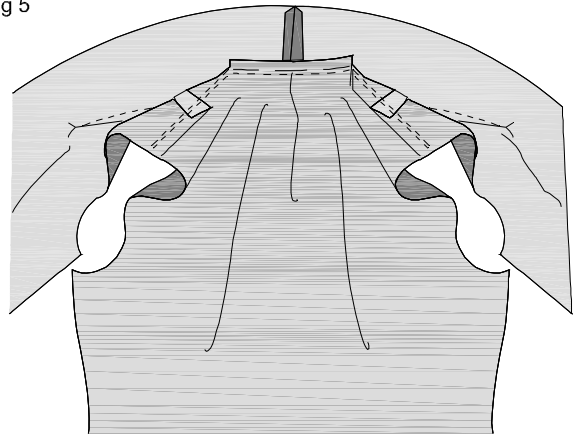
- 5 Now baste and stitch shoulder seam and back neck line in the garment. Clip the seam at neck point on both ends. Press shoulder seam to back side and neck seam towards under collar. (Fig 5)
- 6 Set the interlining on the garment wrong sides together and matching the shape and the seams in centre back.

Fig 4



DRN23432B4

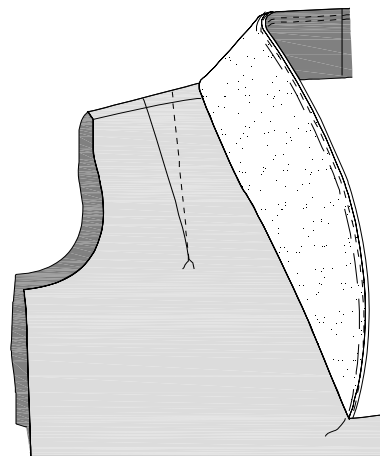
Fig 5



DRN23432B5

- 7 Baste and stitch all around the collar 0.5 cm from edge. (Fig6)

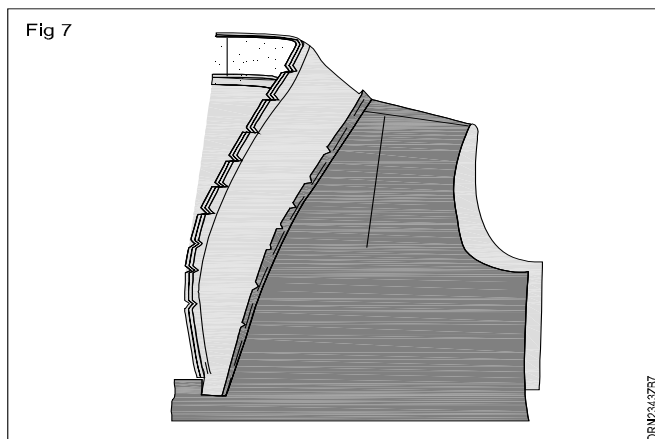
Fig 6



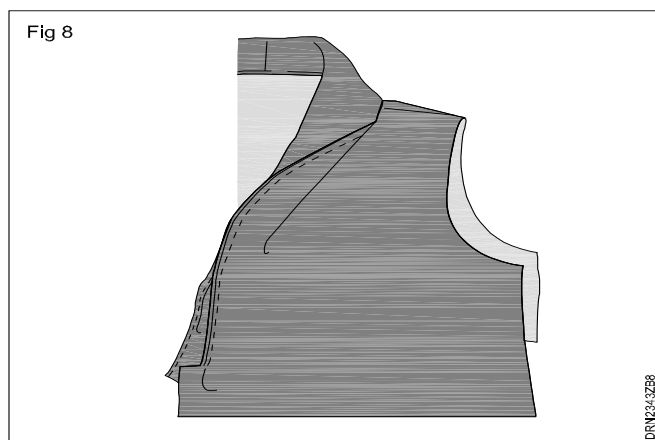
DRN23432B6

Note: Start stitching from centre back seam of collar first to the right, then from centre to the left; otherwise the shape of collar will be spoiled.

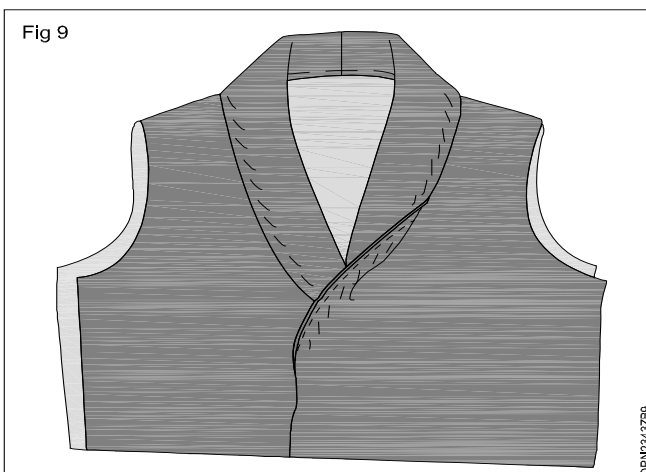
- 8 Turn raw edge of collar end by 1 cm, baste it.
- 9 Take upper collar piece. Clip by 0.5 cm inner shape of upper collar diagonally at a distance of 3 cm between the clips. Turn this clipped edge by 1 cm to wrong side and stitch it.
- 10 Place upper collar on the under collar right sides together and matching seams at centre back. Baste and stitch on outer shape through all the layers, starting from centre back seam to right and then to left side. Stop 1 cm before each end and lock the seam. Cut notches on round shape. (Fig 7)



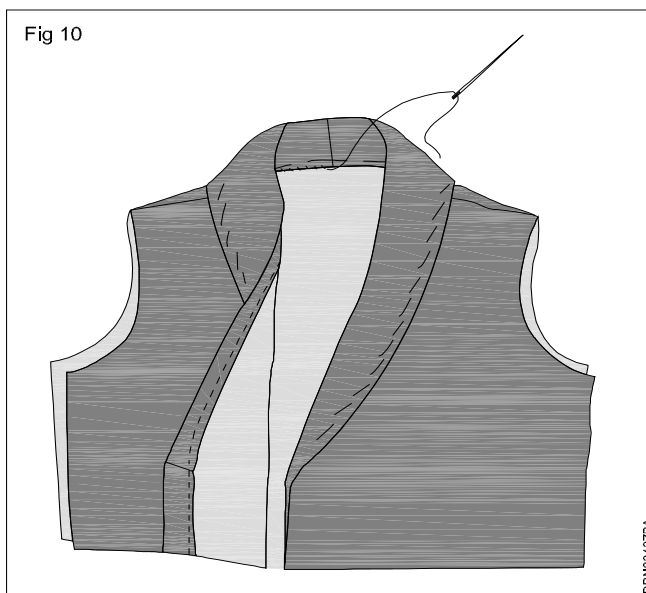
- 11 Press seam allowance to garment side. Turn the whole collar unit to right side, place under and upper collar flat. Set a seam on under collar from right side along the previous seam. Start and stop 2 cm away from the end of both sides of collar. (Fig 8)



- 12 Set collar facing flat on garment facing, baste and fix with slip stitches. Place upper collar on under collar. Set seam on outer edge of collar towards under collar and make diagonal basting to hold in place. (Fig 9)



- 13 Set inner edge of upper collar on back neck seam line matching centre. Baste and hem from sides towards centre. (Fig 10) Remove diagonal basting and press.



Estimate cut and construct blouse style I

Objectives: This shall help you to

- draft and cut the paper pattern of blouse
- prepare master pattern
- lay and cut the required components of blouse
- sew the sari blouse.

Measurements

Front length = 38 cm

Bust level = 5 cm

Shoulder = 38 cm

Bust = 92 cm

Waist = 72 cm

Sleeve length = 25 cm

Sleeve bottom = 28 cm

Material

0.95 x 0.90 m Rubia/Cambric 2 brown sheets



Scan the QR code to view the video for this exercise

TASK 1 : Draft and cut the paper pattern of blouse

Paper pattern drafting

- 1 Lay the brown sheet widthwise folded on the drafting table, with its wrong side facing.
- 2 Draft the pattern of blouse front and back parts, following the instructions for drafting. Cut the balance brown sheet and fold it into equal halves.
- 3 Draft the pattern of sleeves matching the fold of brown sheet.

Pattern cutting

- 1 Cut the prepared paper pattern of blouse front, back, sleeve and placket along the following cutting lines,

leaving enough space around them for preparing master pattern.

- 2 Cutting lines of blouse are

Bodice Front → 19 - 18 - 9 - 10 - 12 - 13 - 6 - 29 - 28
- 30 - 20 - 23 - 15 - 24 - 1 - 3 - 36 - 2 - 19

Bodice Back → 48 - 50 - 47 - 46 - 46a - 44a - 6 - 51
- 56 - 53 - 55 - 42 - 52 - 40 - 48

Sleeve → 0 - 14 - 13 - 12 - 4 - 7 - 5 - 1

(Front shape) → 0 - 20 - 21 - 16 - 4

Placket → 0 - 1 - 2 - 3 - 0

TASK 2 : Prepare master pattern

Master pattern

- 1 Lay the other brown sheet on the drafting table.
- 2 Mark the outline of the back part paper pattern and remove the pattern. Add the master pattern allowance to it and cut the pattern
- 3 Then, similarly draft and cut the front part master pattern.
- 4 Add the master pattern allowances to the sleeve and facing paper patterns already prepared for getting the master pattern.
- 5 Cut notches at required markings like darts, hem line etc.
- 6 Name all the cut pattern of the blouse with its descriptions for future reference.

Instruction for Master Pattern

Front and back

Front opening, shoulders and on armhole 0.75 cm

Sides 2.5 cm

Bottom 3 cm

Sleeves

Top 0.75 cm

Side 2.5 cm

Bottom 3 cm

No seam allowance at neck

Facing

Sides 0.75 cm

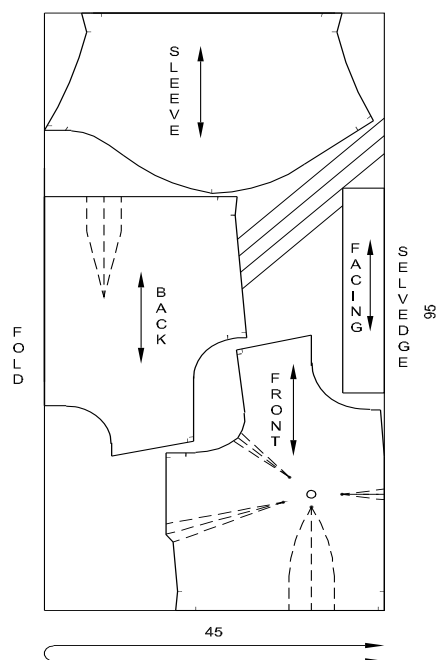
Bottom 3 cm

TASK 3 : Lay and cut the required components of blouse

Layout and cutting

- 1 Fold the blouse fabric widthwise and lay it on the cutting table, with its wrong side facing.
- 2 Spread and arrange the master pattern of front, back, sleeves and placket parts economically on the fabric.
- 3 Mark the outline of all the arranged components using a tailor's chalk.
- 4 Mark all the dart positions carefully and transfer it to the lower layer of the fabric using a tracing wheel.
- 5 Remove the master pattern. Cut the fabric into blouse components as marked with the sharp pointed scissors.
- 6 Cut notches at dart markings to set their positions.
- 7 Fold and tie all the cut fabric components together to prevent it from missing. (Fig 1)

Fig 1



CUT COMPONENTS

FRONT	2
BACK	1
SLEEVES	2
FACING	2

BIAS STRIPS FOR ROUND NECK

DR103-3ZC1

TASK 4 : Sew the sari blouse

Style Features

- Binding at neck
- Front open placket

Materials and Trimmings

- Cut components of plain blouse
- 7 hooks
- Matching colour sewing thread
- Machine needle no - 16
- Hand needle

1 The cut components of plain blouse are the following

Front	2
Back	1
Sleeves	2
Facing	2

Bias strips for round neck.

- 2 Stitch darts of front and back side on marks.
- 3 Press open front waist darts, press side dart, scye dart and centre darts downwards. Press the back darts towards centre line.
- 4 Prepare front placket. (SS.No.1)
- 5 Join front and back shoulder together with double stitched seam.

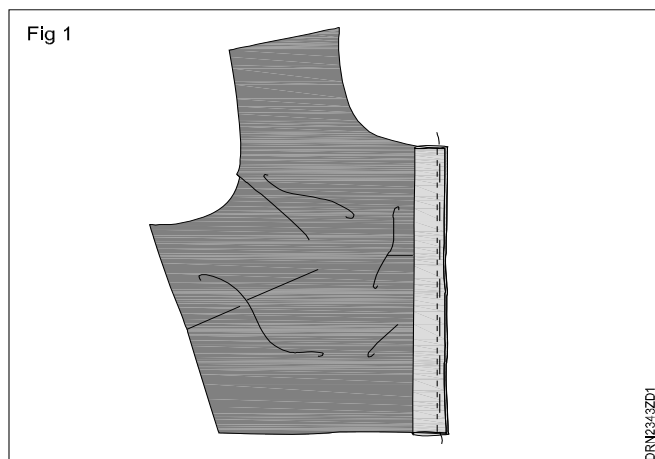
- 6 Trim raw edges of placket at neck and finish neck with bias binding.
- 7 Overlap the placket and baste.
- 8 Stitch front and back sides. Trim raw edges of seam allowance with pinking scissors. Place it flat towards back side and press.
- 9 Remove the basting of lapped placket.
- 10 Hem the bottom.
- 11 Stitch sides of sleeves, trim the seam allowance with pinking scissors and press.
- 12 Mark pitch point (centre of arm hole girth) which will appear on front.
- 13 Place the seam of sleeves along with the pitch point and match shoulder seam and centre of sleeve crown. Pin and baste sleeve with arm-hole with set-in-sleeve method and stitch. Set another row of stitches close to the seam allowance.
- 14 Mark positions and tack blouse hooks on inner side of right side placket.
- 15 Make thread eye for hooks on matching positions on outer side of other placket.
- 16 Finish and press.

Blouse placket

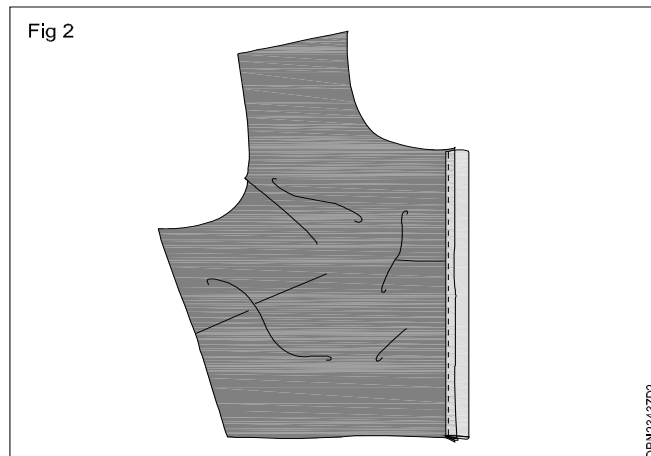
Objective: This shall help you to

- prepare the placket for blouse.

- 1 Take placket and front pieces. Take one piece of placket and fold it lengthwise wrong sides together. Place the raw edge of folded strip along the center edge of right front piece on right side, pin and baste, stitch on seam line (Fig 1).

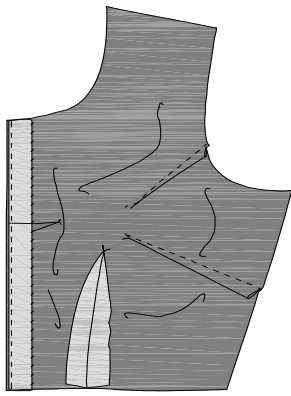


- 2 Turn the placket piece flat by 180° and make edge stitch on the placket piece along the previous seam. (Fig 2)



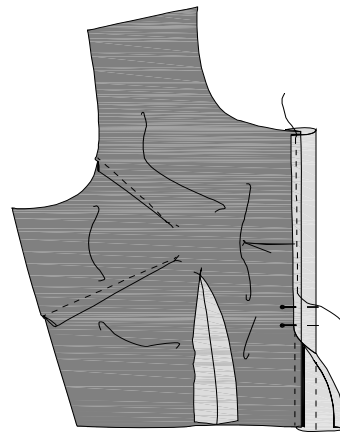
- 3 Turn the placket piece inside the front piece, press and baste. Finish the placket with hemming stitch. (Fig 3)
- 4 Place the other placket piece matching right sides of placket and left front along the center front line, pin and baste, stitch on the marked seam line. Turn the other raw edge of placket piece by 0.75 cm on its wrong side and press. (Fig 4)

Fig 1



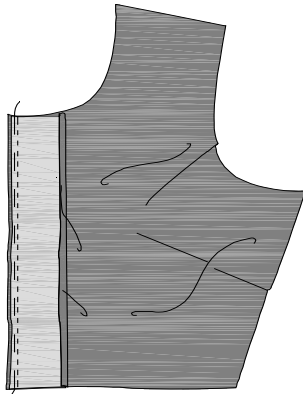
DRN2343ZD5

Fig 5



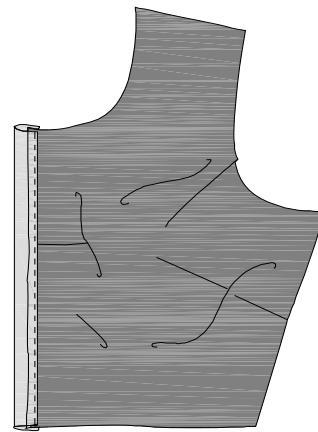
DRN2343ZD5

Fig 4



DRN2343ZD4

Fig 6



DRN2343ZD6

- 5 Turn again the placket piece over the previous seam on wrong side covering it by 2 mm, pin and baste. (Fig 5)
- 6 Stitch from right side in the crevice of previous seam. (Fig 6) Remove basting and press.

Estimate cut and construct blouse style II

Objectives: This shall help you to

- draft and cut the paper pattern of katori blouse
- draft the master pattern with the prepared paper pattern
- lay and cut the components of katori blouse
- sew the katori blouse.



DRN2343E4

Measurements

Full length = 38 cm
Shoulder = 38 cm
Waist = 72 cm
Sleeve bottom = 28 cm

Bust level = 25 cm
Bust = 92 cm
Sleeve length = 25 cm

TASK 1 : Draft and cut the paper pattern of katori blouse

Paper pattern drafting

- 1 Lay the brown sheet widthwise folded on the drafting table with its wrong side facing.
- 2 Draft the pattern of katori blouse - facing, side pieces, katori pieces, belt, and back parts following the instructions for drafting.
- 3 Cut the balance brown sheet and fold it into equal halves.
- 4 Draft the sleeve pattern of katori blouse.

Pattern cutting

Cut the drafted paper pattern of katori blouse components along the following cutting lines.

Leave sufficient space around sleeve facing and belt patterns, to cut master pattern with that.

Bodice Front

Katori Piece → 16 - 21 - 17 - 31 - 32 - 27 - 24 - 26 - 29 - 16

Side Piece → 17 - 20 - 14 - 10 - 12 - 13 - 6 - 33 - 32 - 31 - 17

Bodice back → 6 - 44 - 43 - 42 - 45 - 46 - 34 - 47 - 36 - 50 - 48 - 51 - 40 - 6

Blet → 2 - 4 - 5 - 3 - 0 - 1 - 2

Sleeve → 0 - 14 - 13 - 12 - 4 - 7 - 5 - 1

(Front Shape) → 0 - 20 - 21 - 16 - 4

Placket facings → 0 - 2 - 3 - 1 - 0

— — — — — — — — — —

TASK 2 : Draft the master pattern

Master Pattern

- 1 Lay the other brown sheet on the drafting table with its wrong side facing.
- 2 Mark the outline of back part paper pattern. Remove the pattern, now add the master pattern allowance and cut the master pattern.
- 3 Similarly cut the katori piece and side piece master patterns.
- 4 Add the master pattern allowances to all the other patterns in its paper pattern it self and cut the master pattern.
- 5 Name all the cut master pattern components of katori blouse with their description for future reference.

Instruction for Master Pattern

Front

Neck and armhole 0.75 cm
Shoulder 1 cm
Side 2.5 cm
Bottom 1 cm

Choli

Neck, centre and on curved
Shape 0.75 cm
Bottom 1 cm

Belt

Top and centre front 0.75 cm
Side 2.5 cm
Bottom 3 cm

Back

Neck and armhole 0.75 cm
Shoulder 1 cm
Side 2.5 cm
Bottom 3 cm

Sleeves

Sleeve top 0.75 cm
Side 2.5 cm
Bottom 3 cm

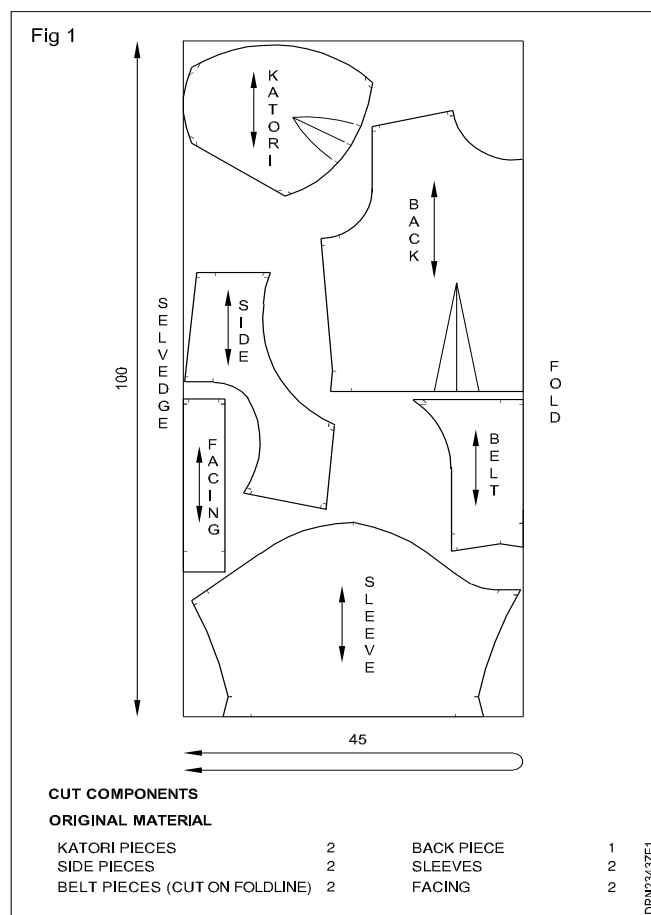
Facing

Bottom 3 cm
All other sides 0.75 cm

For more stability the belt can be finished with a double layer of fabric. In that case the layout/ quantity of material has to change so that 4 belt pieces can be cut from the material.

TASK 3 : Lay and cut the components of katori blouse

- 1 Fold the katori blouse fabric widthwise into two equal halves and lay it on the cutting table with its wrong side facing.
- 2 Spread and arrange the katori blouse master pattern on the fabric
- 3 Mark the outline of the spread master patterns with a contrast colour marking chalk and cut it into fabric components.
- 4 Transfer the required markings to the lower layer of the fabric with a tracing wheel.
- 5 Cut notches at point 31 to mark the position of katori piece and side piece joining.
- 6 Fold & tie all the cut Katori blouse fabric components together, which is ready for stitching. (Fig 1)



TASK 4 : Sew the katori blouse

Style Features

- Front part with belt
- Katori pieces
- Front open placket

Materials and Trimmings

- Cut components of katori blouse
- 7 hooks
- Matching colour sewing thread
- Machine needle No 16
- Hand needle

The cut components of katori blouse are

Katori pieces	2	Back piece	1
Side pieces	2	Sleeves	2
Belt pieces (cut at the foldline)	2	Facing	2

- 1 Prepare and press the darts on back and front.

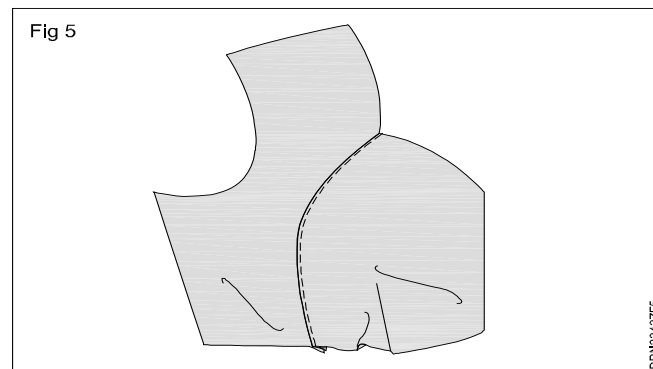
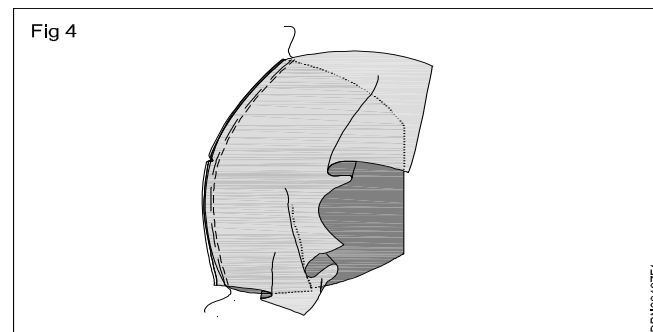
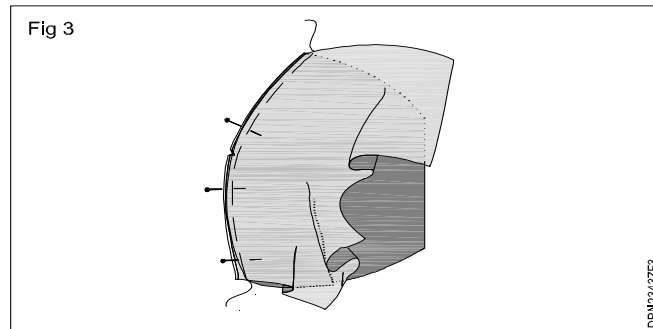
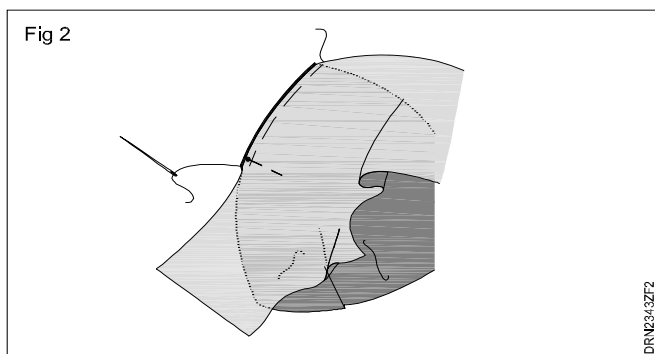
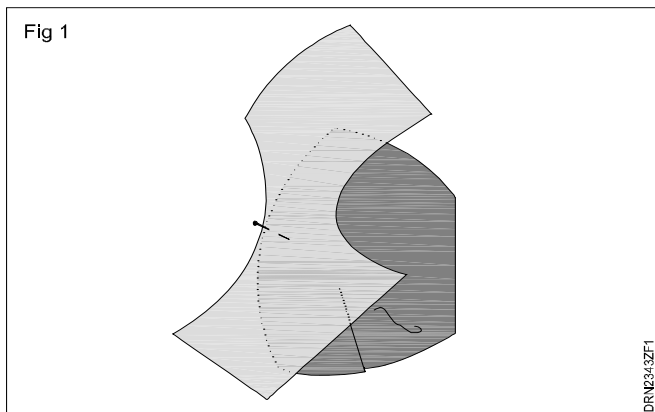
- 2 Attach katori piece to the side piece at curved side (SS.No. 1)
- 3 Fix belt on front side (SS.No.2)
- 4 Prepare front placket.
- 5 Cut facing for front neck from remaining material. Attach to front neck.
- 6 Attach bias strips to back neck.
- 7 Finish back neck with binding.
- 8 Overlap the placket and baste it. Join front and back shoulder.
- 9 Finish side seams.
- 10 Trim inlays with pinking scissors.
- 11 Remove basting from placket. Baste and hem at bottom.
- 12 Prepare sleeves and attach with set-in-sleeve method to blouse.
- 13 Fix hooks and eye on placket.
- 14 Finish and press.

Attaching katori piece

Objective: This shall help you to

- join side and katori piece.

- 1 Take choli piece and side piece and place the side piece over the choli piece with right sides together. Match balance marks and pin. (Fig 1)
- 2 Match on the neck lines joining point of both pieces and pin. Baste on the seam line up to the balance mark. Remove two top pins leaving the pin on balance mark. (Fig 2)



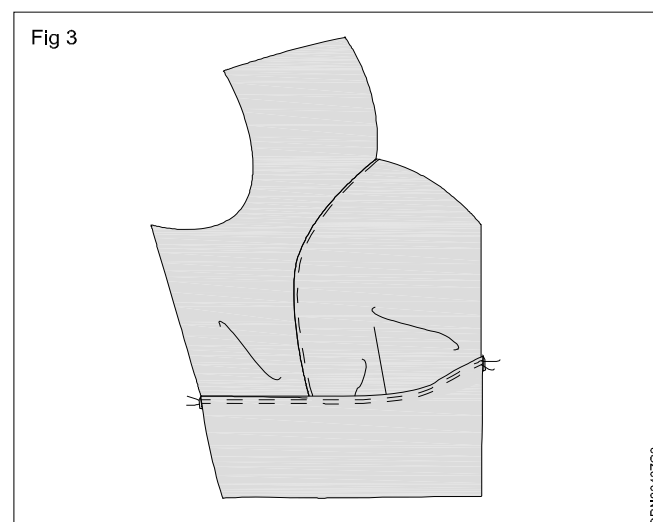
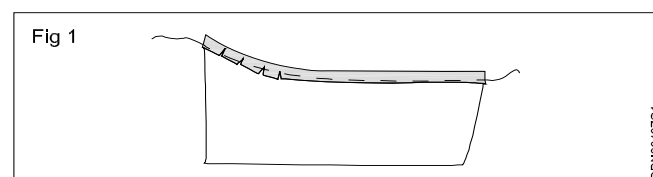
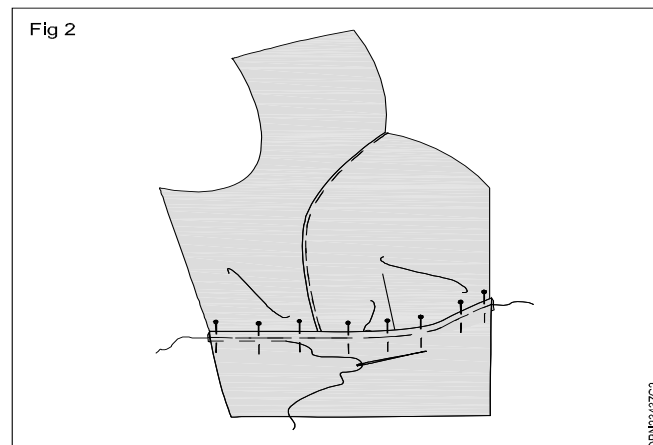
- 3 Match the bottom end of choli piece and side piece and pin. Put another pin in the middle between the two pins and baste up to the lower end. (Fig 3)
- 4 Remove the pins and stitch on the seam line. (Fig 4)
- 5 Place side piece flat and press gently; press seam allowance towards choli piece. Make top stitch on the edge of choli piece. (Fig 5)

Attaching belt

Objective: This shall help you to

- fix belt in the choli-cut blouse.

- 1 Take front piece and belt piece. Turn upper raw edge of belt by 0.75 cm towards wrong side and baste. (Fig 1)
- 2 Turn the belt piece to right side, set the belt on the bottom of the front piece leaving 1 cm seam allowance. Match centre edge and inlays at the side of front and belt piece. Pin and baste. (Fig 2)
- 3 Remove the pin. Stitch on the top edge of belt. Stitch parallel to the previous seam line at a distance of 3 mm. (Fig 3) Press it.



Check the fitting of the garment of ladies

Objectives: At the end of this exercise you shall be able to

- press and fold a t-shirt
- press and fold a sari petticoat.

Requirements

Tools / Instruments

- Iron box & Pressing table - 1 No. each.
- Dummy (size should be matched with the size of the garments)

Materials

- Shirt and trousers - 1 No. each.
- Sewn sari blouse and petticoat - 1 No. each.

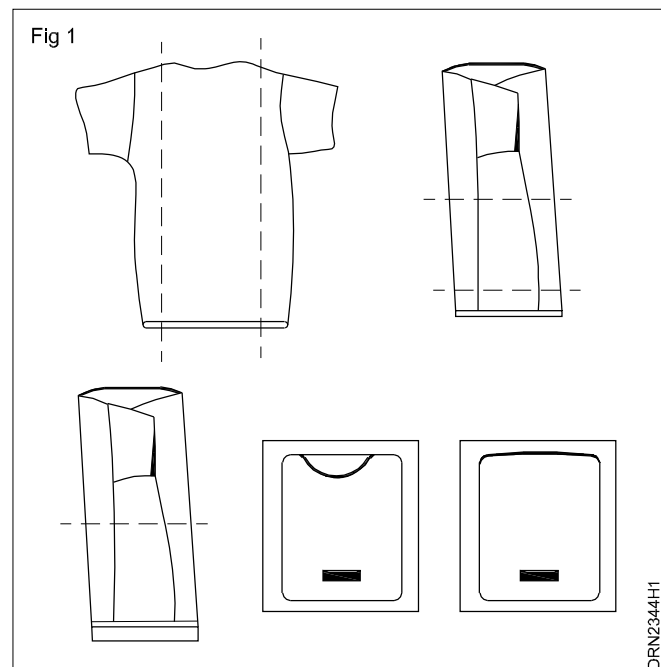
PROCEDURE

TASK 1 : Folding of a short-sleeve T-shirt

- 1 Fold the arms straight across back.
- 2 Fold the shirt side seams across back of shirt.
- 3 Fold the bottom edge of shirt about 2-inches from the bottom.
- 4 Fold the shirt in half.

Ironing or pressing: It's one of the important processes in garment finishing. Here garments are ironed by following the measurement chart of those garments.

Folding: After completing all the processes garment are folded here.



TASK 2 : Check the fitting of a sari petticoat

- 1 Put on the garment right side out over a correct size dummy.
- 2 Check the waist line of the petticoat is matching with the waistline of the dummy.
- 3 Adjust the petticoat so that the waist line coincides with the waistline and side seams coincide with the sides of the dummy.
- 4 Study the overall appearance of the petticoat. (Fig 1)
- 5 Check whether there are any changes needed in length and bottom circumference of the petticoat.
- 6 Check whether it has the right amount of ease across the hip.
- 7 Check whether the seam lines follow the general silhouette of the dummy.
- 8 Check whether the grain lines are falling correctly in the proper places of the dummy.
- 9 Check whether there are any wrinkles.
- 10 Note the changes in a paper if necessary.

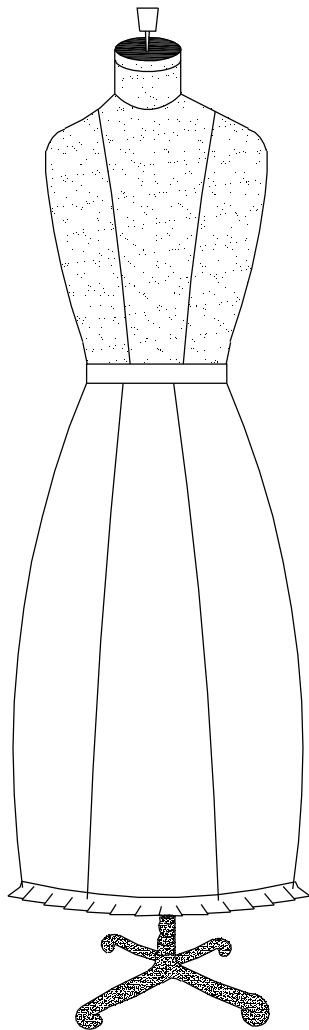
Get the work checked by your instructor.

TASK 3: Check the fitting of a garment

- 1 Put on the Blouse and Petticoat right side out over a correct size dummy.
- 2 Match the Centre Front line of the Blouse and Dummy. Adjust the blouse, so that the centerlines coincide with the centre of the dummy.
- 3 Check whether the armhole, neckline and lower edge of the blouse fix on the dummy properly. Otherwise adjust the blouse for correct fixing.
- 4 Check the waist line of the petticoat is matching with the waistline of the dummy.
- 5 Adjust the petticoat so that the waist line coincides with the waistline and side seams coincide with the sides of the dummy.
- 6 Study the overall appearance of the Blouse and petticoat.(Fig.1)
- 7 Check whether there are any changes needed in the length of the blouse, sleeve and shoulder seam.
- 8 Check whether the blouse has the right amount of ease across bust, upper arm, back etc.
- 9 Check the seamlines of Shoulder, armscye, side seam, waistline and neckline follow the general silhouette of the body of the dummy.
- 10 Check whether the darts are of optimum width and point towards the bust point ending $\frac{3}{4}$ " to 1" away from the bust point.
- 11 Check whether there are any changes needed in length and bottom circumference of the petticoat.
- 12 Check whether it has the right amount of ease across the hip.
- 13 Check whether the seam lines follow the general silhouette of the dummy.
- 14 Check whether the grain lines of both the upper and lower garment are falling correctly in the proper places of the dummy.
- 15 Check whether there are any wrinkles in both the upper and lower garment.
- 16 Note the changes in a paper if necessary.

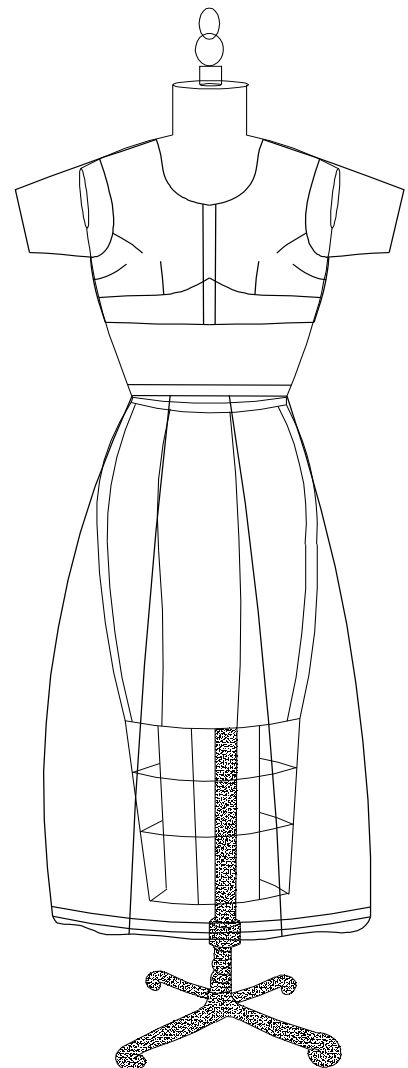
Get the work checked by your Instructor.

Fig 1



DRN2344J1

Fig 1



DRN2344X1

Dress Making - Garment making and production technique

Pattern making using adoption, fabric

Objectives: At the end of this exercise you shall be able to

- prepare the muslin cloth for draping in basic bodice
- prepare the muslin for dart variation.

Requirements			
Materials			
• Tailor chalk	- 1 No.	• Paper pins	- 1 No.
• Measuring tape	- 1 No.	• Tracing paper	- 1 No.
• Scissors	- 1 No.	• Dress form	- 1 No.
• Pencil HB	- 1 No.	• Iron box	- 1 No.
• Quilters ruler	- 1 No.	• Ironing table	- 1 No.
		• Muslin cloth	- 1 No.
		• Tracing wheel	

PROCEDURE

TASK 1: Principles of pattern making using adoption, fabric

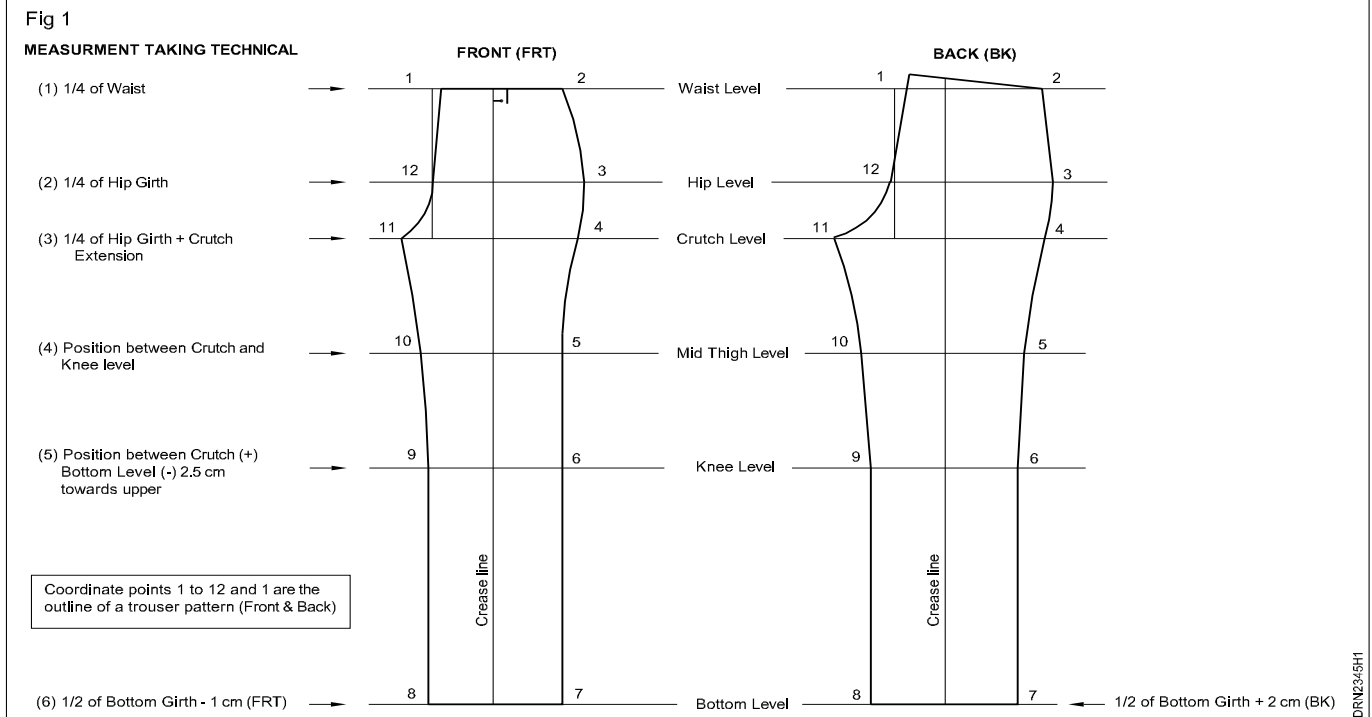
- 1 A far as possible make changes within the pattern by slashing and spreading or slashing and lapping. Patterns can also be altered by redrawing the edges of the pattern. (This is the method adopted for altering garments at the time of fitting.) But the first method is by far the best in altering paper patterns.
- 2 To preserve the original grain line, make all slashes and folds parallel or perpendicular to the grain line (to center front line, center back line etc.).
- 3 Where there are darts, make changes between the tip of the dart and the outside edge.
- 4 If an alteration in length is made along one edge of the pattern, take care to make an identical alteration in the adjoining edge. For example, if back shoulder seam is shortened the front shoulder seam should also be shortened.
- 5 When tucks or darts are used for making a pattern smaller, remember that the width of these should be just half the amount to be removed.
- 6 When decreasing or increasing the width of pattern pieces, if only half the pattern (half back or half front) is used, subtract or add only one fourth of the total adjustment to be made. For example, if waist measurement has to be increased by one inch, add $\frac{1}{4}$ " to the half back pattern and the same amount to the front pattern. If only a front or back section needs adjustment, add or minus half the amount of the adjustment to the respective section.
- 7 When the pattern alteration involves slashing and spreading, it is necessary to keep a sheet of paper beneath and to pin or stick to it the spread-out parts so that they will thereafter remain in position. On spreading or lapping after slashing, some edges of the pattern become jagged. These must be trimmed after drawing the new seam lines.

How to Check the Altered Fit?

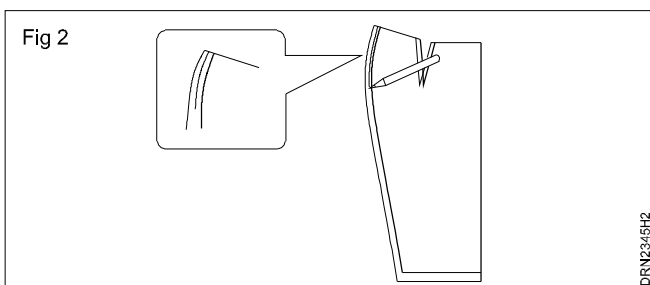
Before cut the fashion fabric check the pattern fit, only the basic parts of the garment together.

- Take a helping person who helps you to check the fit of the garment. Otherwise you stand in front of a full-length mirror.
 - Use the following checklist that helps you, if further alterations or minor fitting is needed for a good fit.
- 1 Adequate wearing ease is available for sitting, moving and bending.
 - 2 Armhole seams curve smoothly over the end of shoulder.
 - 3 Crosswise grain lines are parallel to floor.
 - 4 Crotch depth is right, neither too low and baggy nor too tight and binding.
 - 5 Darts point to the fullest part of the curve.
 - 6 Hemline is even.
 - 7 Hipline fits smoothly.
 - 8 Lengthwise grain lines, side seams, center front and center back seams hang straight or at right angles to the floor.
 - 9 Pant legs hang smoothly and do not restrict any part of the legs.
 - 10 Pants hang smoothly from the waist. The waistband fits the body comfortably and stays in place when bending and sitting.
 - 11 Pants have no pulls or excess fabric across the front or back crotch level.
 - 12 Shoulder seam length comes to end of shoulders.
 - 13 Sleeves are comfortable with no wrinkles.
 - 14 The length of the garment is becoming.

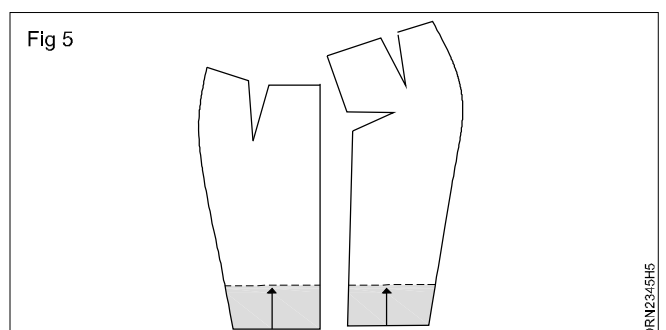
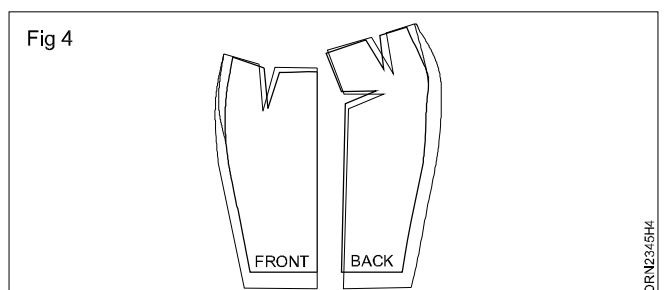
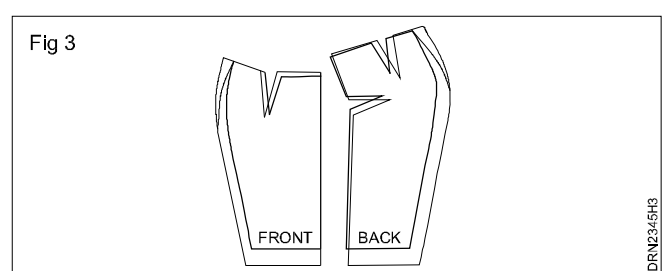
Pattern making using adaption fabric (Fig 1)



- Because it is difficult to have too many sizes on one pattern, we have chosen to have only 5 (men) or 6 (women) sizes per pattern. This means that we have had to skip every second size.
- If you require an in-between size then simply draw a new pattern between the lines of the existing pattern, following the same lines and contours, of the smaller and larger size.
- This works for all patterns, both men's and women's. (Fig 2)

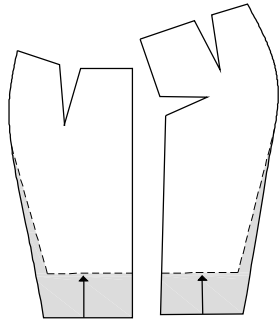


- For one size waist and larger size hip, draw the contoured line connecting the points of the smaller size waist to the larger size hip.
- Do this on both front and back pieces.
- For one size smaller hips, and a larger size waist, draw a contoured line connecting the points of the larger size waist to the smaller size hips.
- Do this on both front and back pieces. (Fig 3 & 4)
- To make a skirt shorter, measure how much you want to take off and mark it out on both front and back pieces.
- Keep note to leave enough for seam allowance otherwise your skirt may become too short. (Fig 5)



- To make a skirt longer you will also need to widen it a little from the hip line as well as lengthen it.
- You may also have to add splits in the side seam/s or back seam. (Fig 6)

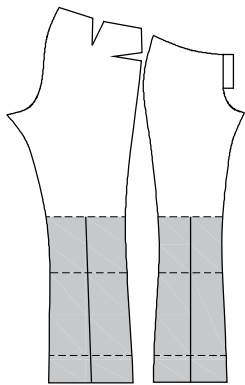
Fig 6



DRN23/5H6

- To make pants shorter, measure how short you want them to be.
- To add seam allowance so your pants do not get too short.
- Mark out the measurements on both front and back piece.
- You can also make 3/4 length pants and shorts from this pattern. (Fig 7)

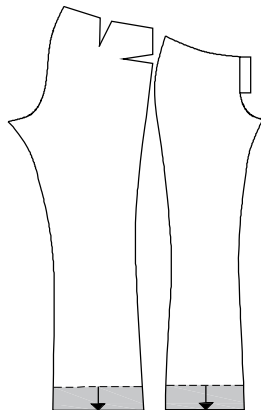
Fig 7



DRN23/5H7

- To make the pants longer, measure the length required and adds it to the bottom.
- To add seam allowance and continue the line of the pants. (Fig 8)

Fig 8



DRN23/5H8

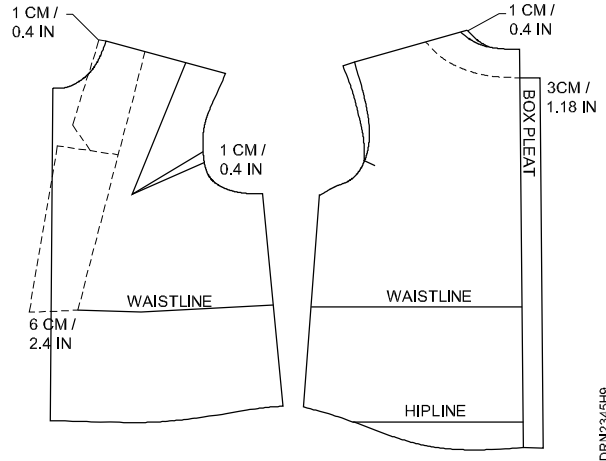
Drafting the shirt pattern

The shirt bodice pattern

- Continue the shoulder line to get a dropped shoulder. By adding just 1,5cm / 0,59in.
- The original shirt has way more longer shoulder line though. But I didn't want to have to do other modifications

to the armscye; When you drop the shoulder, you are supposed to lower and widen the underarm region, too. (Fig 9)

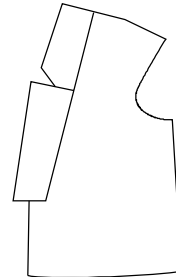
Fig 9



DRN23/5H9

- Try starting at the waistline and went for 6cm / 2,4in in width, half of which extends from the c. front. Spoiler alert: Later ended up moving the starting point upwards.
- Add 1cm / 0,4in to the shoulder line towards the neck because the collar would anyways tend to open by itself.
- The neckline then continues to the backside.
- Shape the bodice front a bit by adding a little dart that at the same time gets rid of some extra volume at the armscye. (Fig 10)

Fig 10

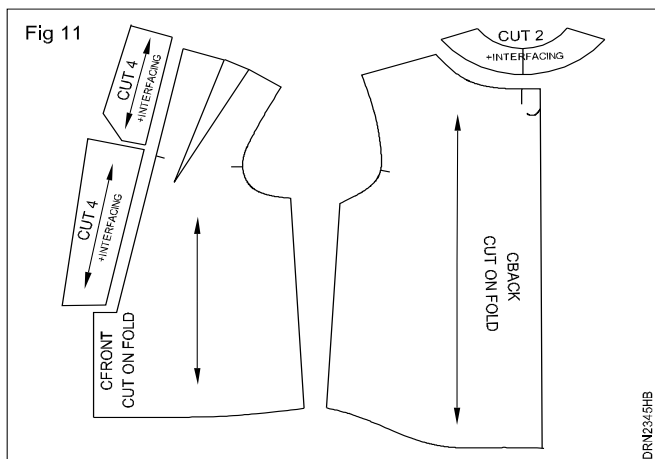


DRN23/5H10

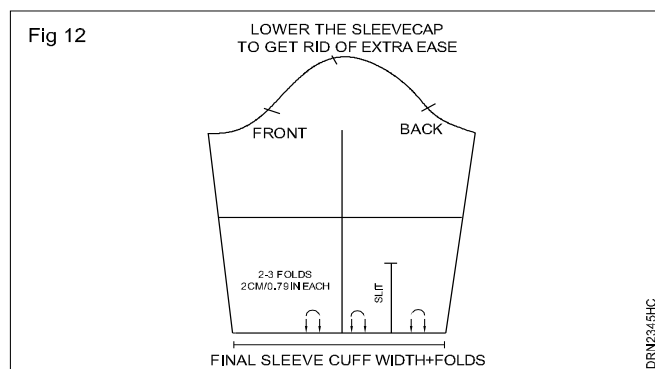
- Unite it at the chest point and then rotate towards the shoulder. Re-draw the armscye.
- The seam at the center front seemed useless so to leave it out.
- At the back you just make the same modifications to the shoulder line and add a box pleat at center back.
- Decide the shirt length and the shape of the hemline. Shirt is a bit longer at the back with a slight curve. (Fig 11)

The shirt sleeve pattern

- The shirt will also need a sleeve. Your basic bodice pattern should have a sleeve to go with it.
- Lower the sleeve cap the same amount you dropped the shoulder. Then check the amount of ease you have. You might have to lower some more. This kind of shirt sleeves shouldn't have almost any ease. 1cm / 0,4in max. Especially going for French seams.

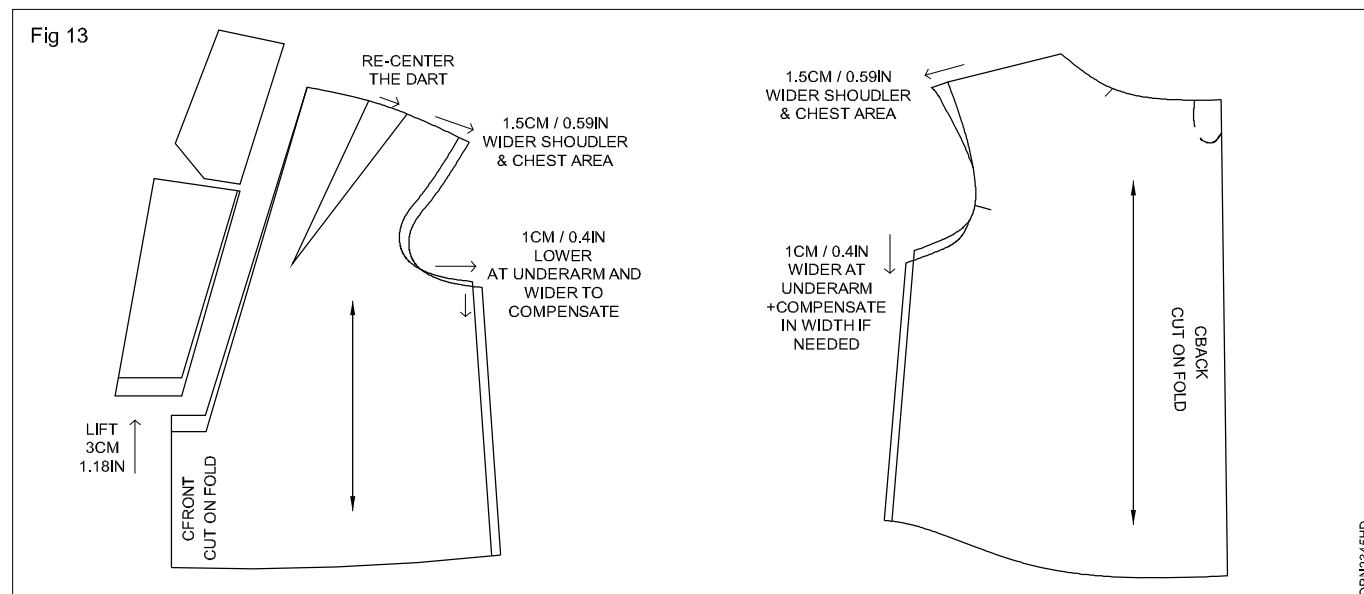


- Unless your sleeve cuff will be particularly narrow, shorten the sleeve a couple of cm or an inch.
- The sleeve hem width will be the sum of cuff width and the folds. So measure your wrist imagining how loose you want your cuff to be closed.
- The overlap will be covered with the placket, don't count that in here.
- Also want to have 2-3 folds, each 2cm / 0,79in wide. (Fig 12)



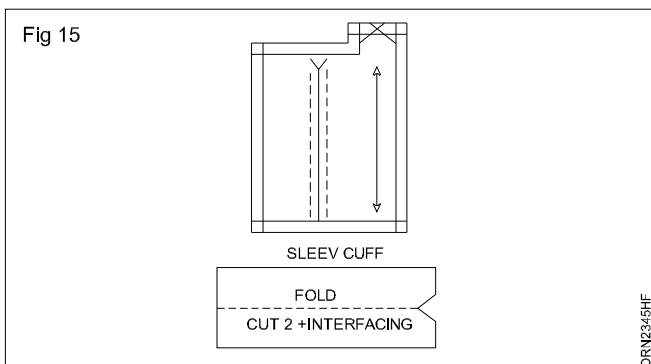
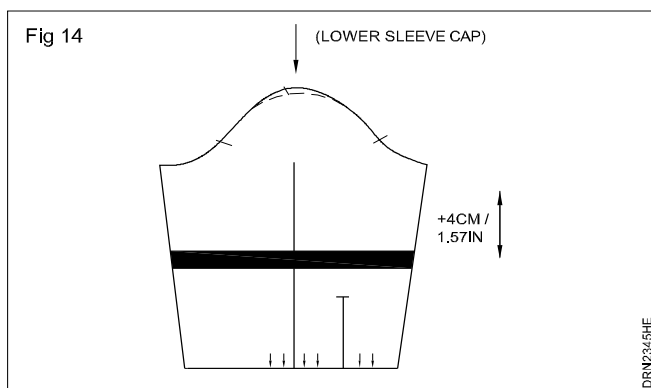
Placket & Cuff

The placket will be placed as in the drawing, at the back side of the sleeve. So draw a slit, choosing the length. The folds will be around it and going towards the placket.



Bottom of Form

- Adjust the slit length so that it's the same on the placket- and sleeve pattern. Also, this placket works with 2cm / 0,79in wide cuff overlap. So if you want a wider overlap, add twice that amount to the right side of the placket.
- As for the cuff, it's just a rectangle. Already have the length as decided earlier. Just add the overlap, which can be something like 2-3cm. (Mine is 2cm.) Then all that's left is the height.
- The sleeve cuff can be folded in two, so the rectangle will be twice the height of cuff. If cuff is 6cm high, (so that makes the total 12cm,) and has a little angle detail at the overlapping bit. Add the seam allowance all around if we prefer. (Figs 13, 14 & 15)



Estimate cut and construct dress for gent's shirt - Style I

Objectives: At the end of this exercise you shall be able to

- stitch a sleeve with yoke and 2 side pleats in back
- stitch and attach a cuff
- fix the yoke on back
- attach the shirt collar.

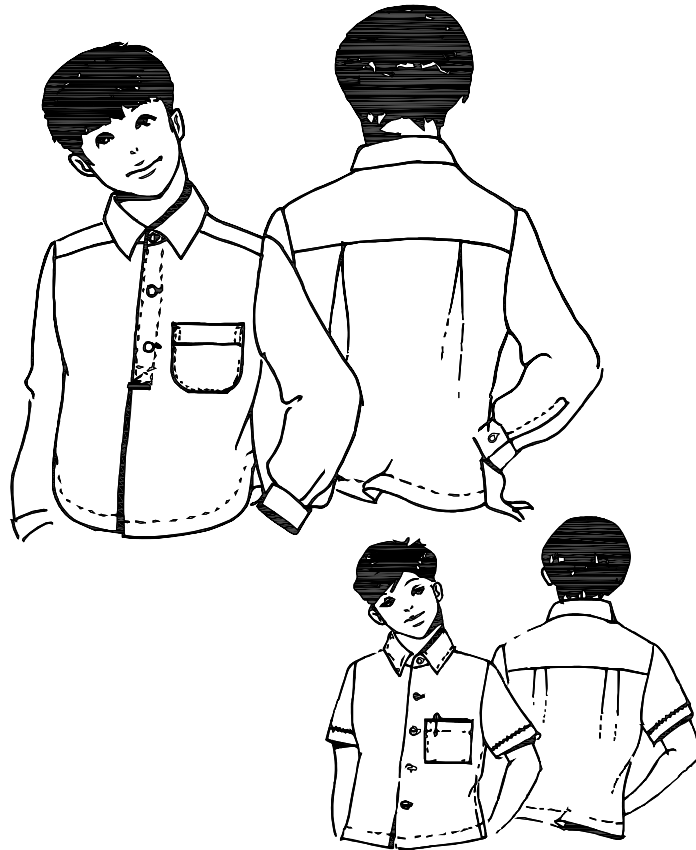
Requirements

Tools / Instruments

- Cutting table - 1 No.
- Measuring tape - 1 No.
- Meter scale - 1 No.
- Scissors - 1 No.
- Cello tape - 1 No.
- Marking chalk - 1 No.

Materials

- Plain design fabric - 10 m.
- Plain design one side fabric - 10 m.
- One way fabric - 10 m.
- One way one side fabric - 10 m.



DRN23/6E1

Measurements

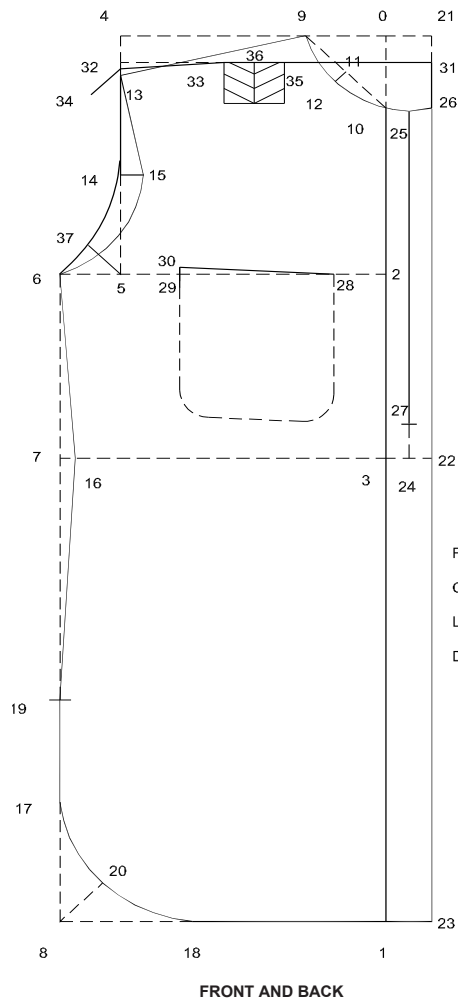
- Full length = 65 cm
 Natural waist = 31 cm
 Neck = 32 cm
 Shoulder = 35 cm
 Chest = 70 cm
 Sleeve length = 52 cm

Material

- 1.75 X 0.90 m Terycot/Cotton (Shirt material)
 0.12 x 0.90 cm fusing material
 6 buttons

Fig 2

INSTRUCTIONS FOR DRAFTING



FRONT AND BACK

Full sleeve

0-1 = SL - cuff width
(4 cm)

0-2 = Ch/4

2-3 = Ch/12 + 1.25 cm

1-4 = Ch/6 + 1.5 cm

4-5 = 1 cm

0-6 = Ch/24 + 1 cm

7-10 = 0.3 cm

8-11 = 0.7 cm

9-12 = 0.7 cm

3-13 = Ch/24

13-14 = 1 cm

0-15 = 1/2 of 0-6

Square out horizontally
and vertically
from 0

Square out from 1
and square down
from 2

Square out from 3
Join 3-4 and extend
Join 1-5

Join 6-3, divide 6-3
in four equal parts
and mark 7, 8, 9
and square up

Shape 0-6-12-11-
10-3 (Back shape)
Square up from 13

Join 15-14
Divide 15-14 into
three equal parts,
mark 16, 17 square
up from 16 and 17

Front

Square out horizontally and vertically and from 0

0-1 = FL

0-2 = Ch/4

0-3 = NW

0-4 = Sh/2

2-6 = Ch/4 + 4 cm

0-9 = 0-10 =

N/6 + 1 cm

9-11 = 1/2 of 9-10

11-12 = 0.75 cm

4-13 = Ch/24

5-14 = 1/2 of 13-5

14-15 = 1.25 cm

7-16 = 1 cm

8-17 = 8-18 = Ch/8

8-19 = FL/4

8-20 = 4 cm

0-21 = 3 cm

3-24 = 10-25 =

1/2 of 3-22

24-27 = 2.5 cm

5-28 = Ch/24 + 1 cm

28-29 = Ch/6 - 1.5 cm

28-30 = 0.5 cm

Back

21-31 = 4-32 = Ch/36

32-33 = Ch/12 + 1 cm

32-34 = 1/2 of 32-13

33-35 = 4 cm

33-36 = 1/2 of 33-35

5-37 = 1/2 of 5-6

Square out from 2,3,1

Square down from 4 and mark 5

Square down from 6 and mark 7 and 8

Join 9-10, square out from 10

Square out from 11

Shape 9-12-10 (front neck)

Join 9-13 (shoulder slope)

Square out from 14

Shape 13-15-6 (front armhole)

Shape 6-16-19 (side)

Divide angle 17-8-18

Shape 17-20-18

Square down from 21 and mark 22-23

Square up from 24

Extend neck shape 9-12-10 and mark 25

Reverse the neck shape 25-10-12 from 25 and mark 26

(25-27 placket opening)

Square up from 28

Join 30-29 (pocket mouth mark)

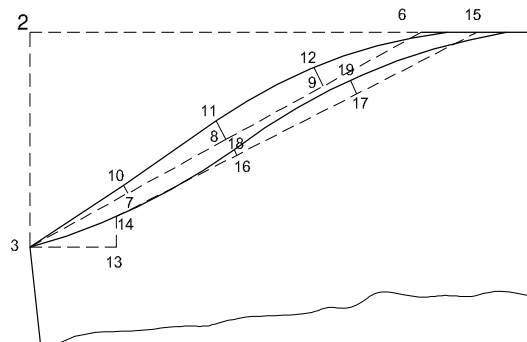
Join 31-32

Shape 34-33

(Pleat mark)

Divide angle 34-5-6

Shape 34-14-37-6



SLEEVE (ENLARGED VIEW)

16-18 = 0.2 cm

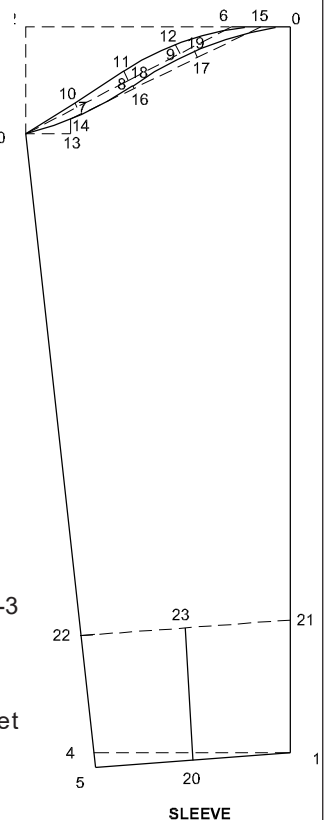
17-19 = 0.5 cm

Shape 0-15-19-18-14-3
(front shape)

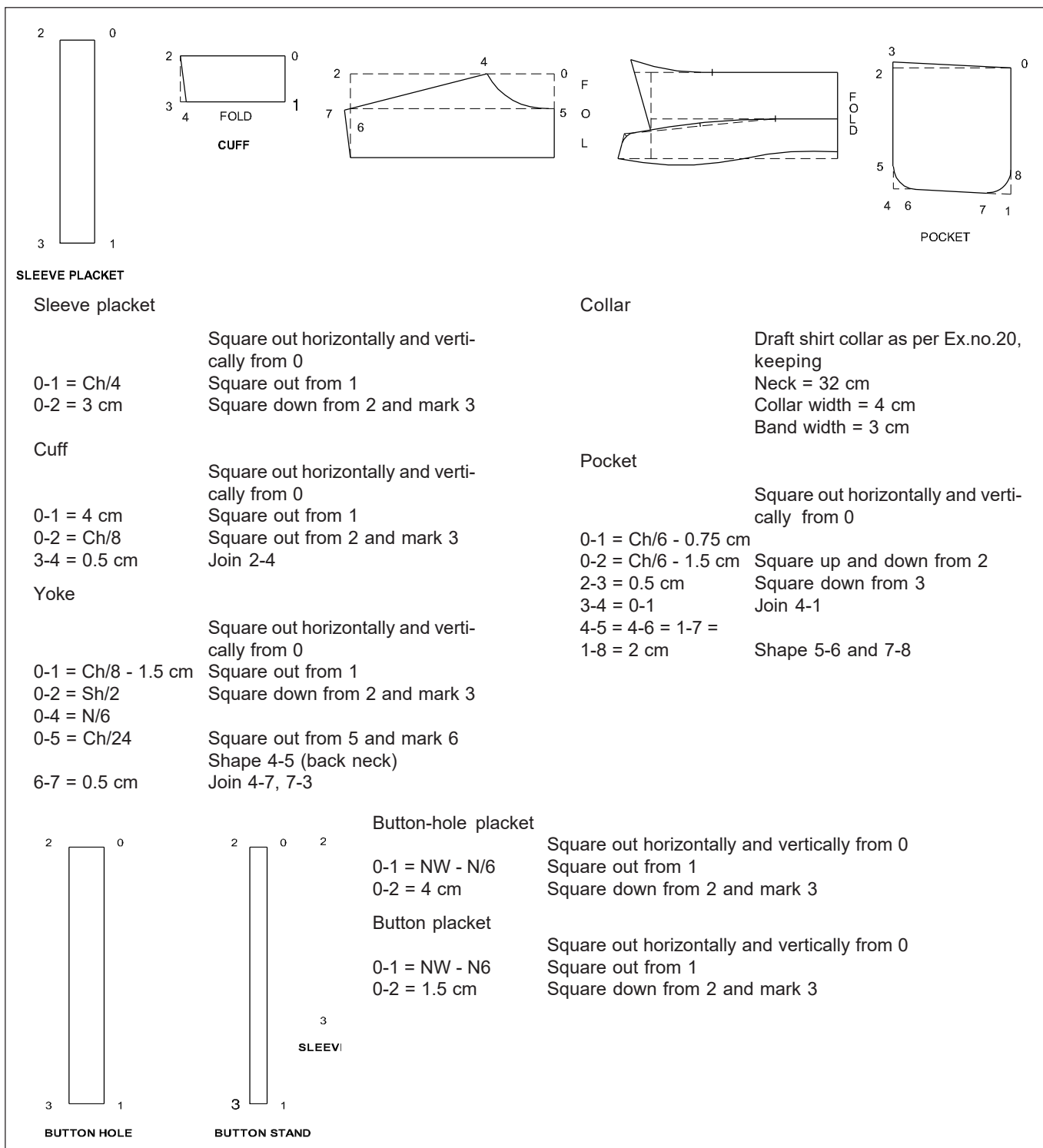
1-20 = 1/2 of 1-5

1-21 = 5-22 = Ch/8

21-23 = 1/2 of 21-22 Join 21-22
Join 20-23 (placket
mark)



SLEEVE



INSTRUCTIONS FOR MASTER PATTERN

Front and back

neck, shoulder, armhole 0.75 cm
side and bottom 1 cm

Sleeve

side and bottom 1 cm
sleeve crown 0.75 cm

Yoke

neck, shoulder, side 0.75 cm
bottom 1 cm

Placket strip

0.75 cm all around three sides

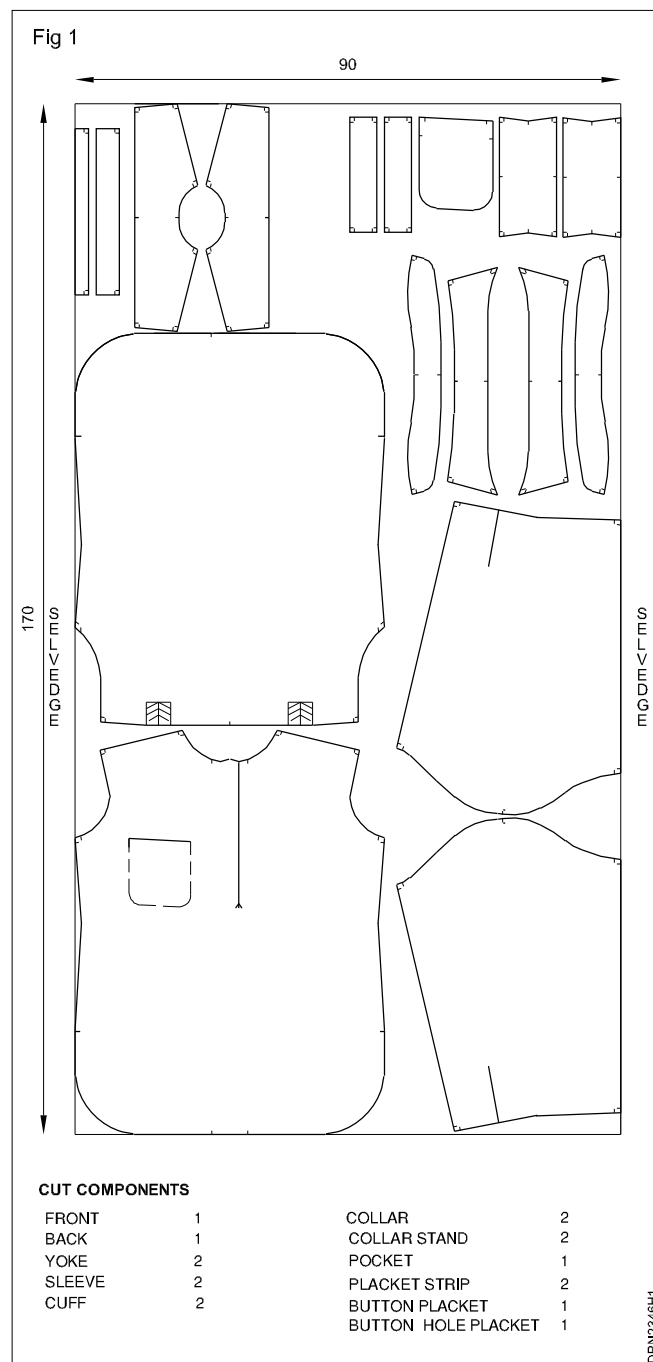
Pocket

mouth turning 3 cm
all other three sides 0.75 cm

Button and button hole plackets

three sides 0.75 cm
no seam allowance at one longer side

- Draft paper pattern according to given measurement. (Fig 2)
- Prepare master-pattern.
- Lay pattern on wrong side of fabric, transfer marks with chalk and cut all the components. (Fig 3)
- Transfer marks of pleats, pocket, placket with tracing wheel on lower layer.
- Take pattern for collar and cuff and mark on fusing (without seam allowance) and cut.
- Prepare half open placket (Italian placket) at front part.
- Prepare chest pocket (patch pocket) and attach it on the left side of front part on mark.
- Set reverse pleats on back part on mark. Attach yoke and join front and back pieces. (SS.No.1)
- Prepare one piece placket on sleeves at mark of slit.
- Attach sleeve on armhole with shirt-sleeve method.
- Stitch under arm seam and side seam matching the balance marks.
- Prepare and attach cuff with sleeve. (SS.No.2)
- Prepare shirt collar and attach with gorge (neckline). (SS.No.3)
- Turn the bottom by 0.25 cm first, then take 0.5 cm for second turn on front and back of shirt.
- Overlock all raw seam allowances.
- Cut and make one-bar-one-fan buttonhole in horizontal position on collar stand (left side). Place it in centre of stand, 1 cm away from edge.
- Divide the remaining distance of opening into four equal parts and make three vertical one-bar-one-fan buttonholes, 1 cm away from edge.
- Stitch buttons accordingly.
- Stitch button and button hole in the centre of each cuff 1 cm away from edge, place them in horizontal direction.
- Finish and press.

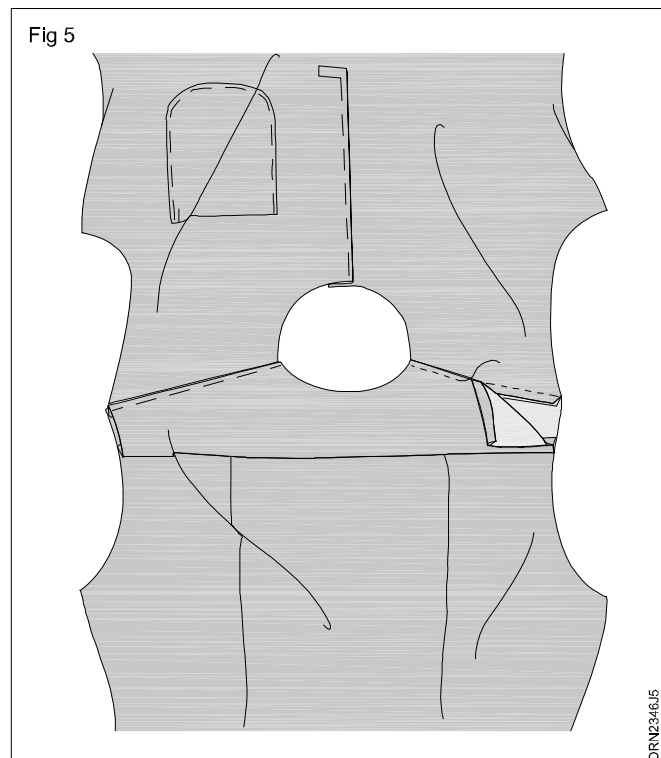
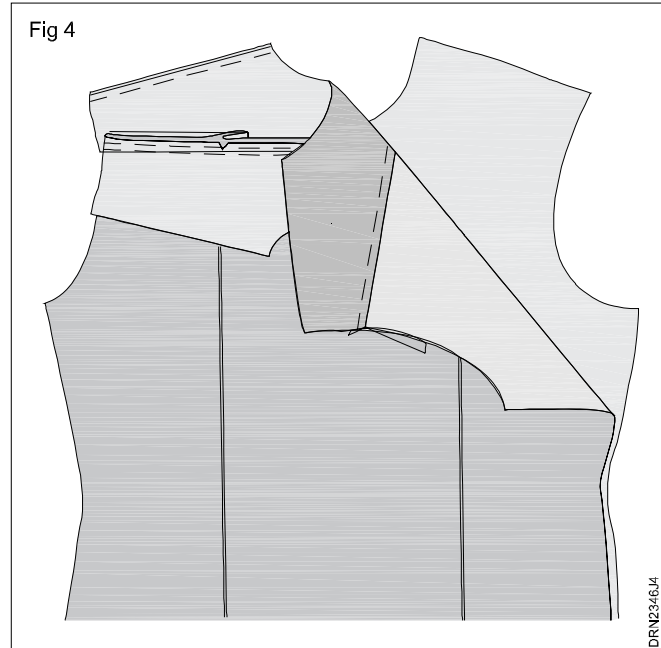
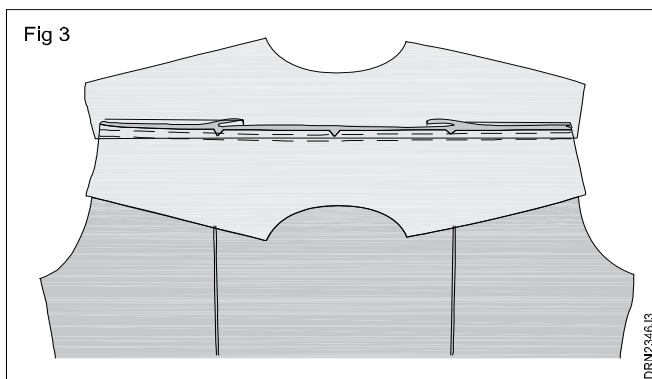
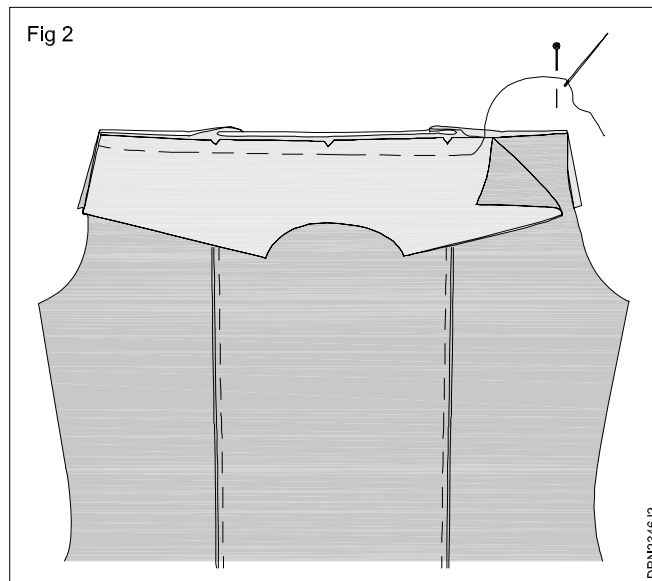
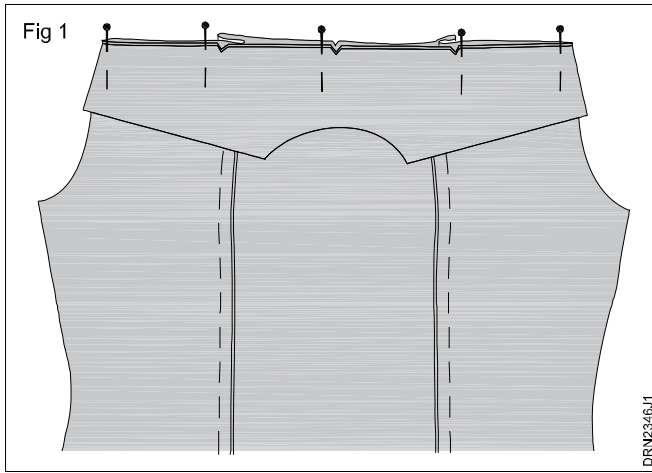


Yoke

Objective: At the end of this exercise you shall be able to

- **fix yoke on back.**

- 1 Set 2 reverse pleats on marks and baste.
- 2 Match raw edges of one yoke piece (neckline down) with back on notches of centre front lines, wrong side of back and right side of yoke together. (Fig 1)
- 3 Take other yoke piece and place it on back piece with right sides and upper raw edges together. Stitch. (Fig 2)
- 4 Turn lower part of inside yoke (neckline on top) and stitch seam allowance to inside yoke. (Fig 3)
- 5 Join lower yoke with front bodice on shoulder line. Stitch on both shoulder lines leaving seam allowance. (Fig 4)
- 6 Turn the raw edge of upper yoke at shoulder line by 0.75 cm. Place over seam allowance of lower yoke and stitch with top stitch. (Fig 5)

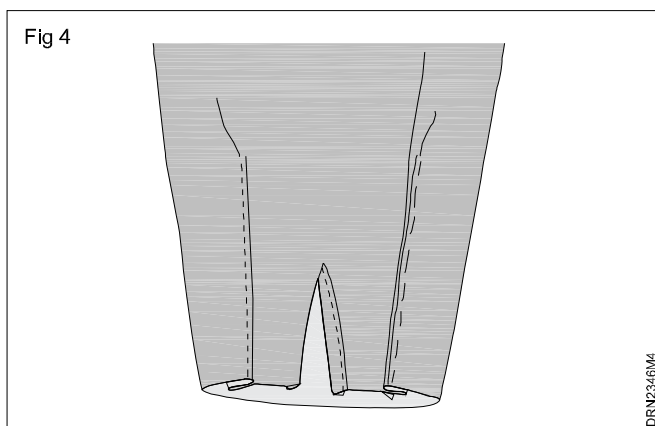
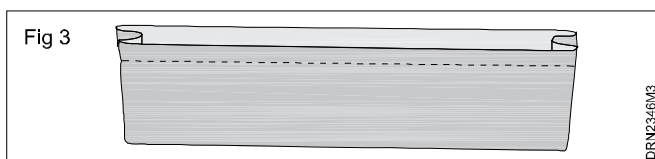
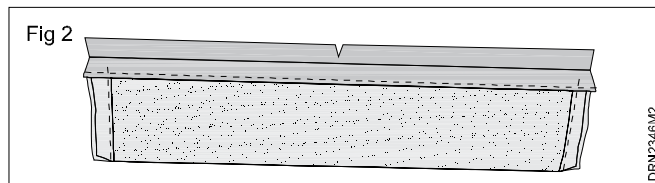
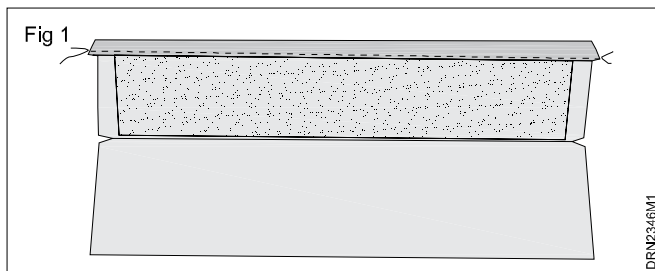


Attaching cuff

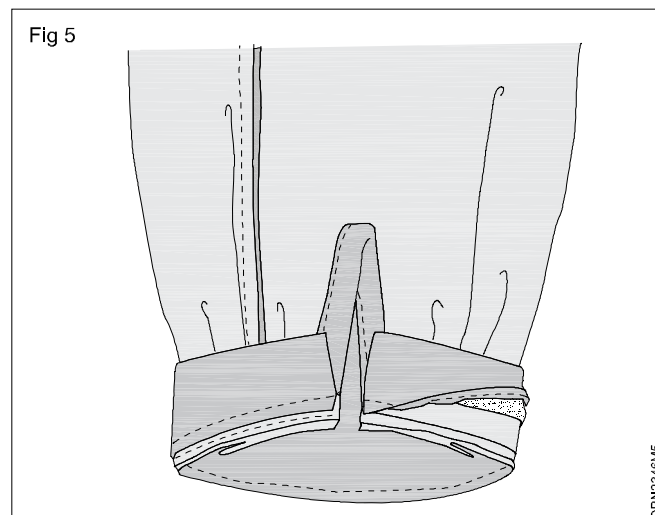
Objective: At the end of this exercise you shall be able to

- prepare and fix cuff to sleeve bottom.

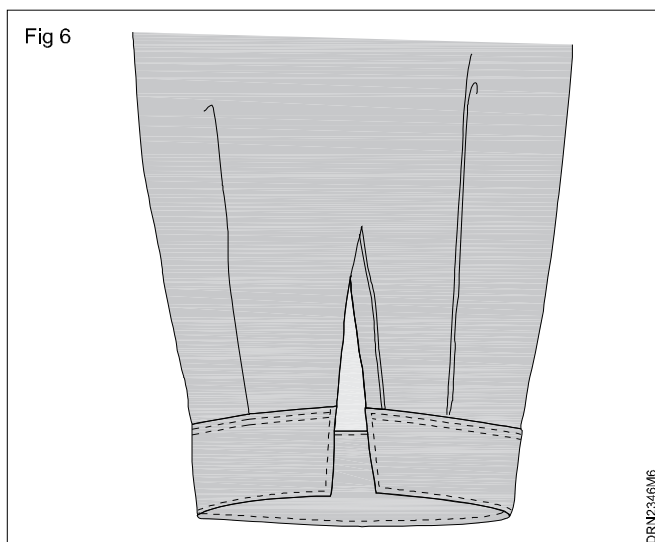
- 1 Place cuff pattern over fusing and cut two pieces. Leaving seam allowance on three sides place fusing piece on wrong side of the material.
- 2 Turn the longer edge of seam allowance inside. Baste and stitch 0.75 cm away from edge on right side.(Fig 1)
- 3 Fold cuff on centre line, right sides together. Baste and stitch from fold side leaving 2 mm unstitched at the folded edge and lock the stitch. (Fig 2)
- 4 Turn the cuff inside out (take care of corner). Cut notch at centre of raw edge. Press. (Fig 3)
- 5 Press the placket inside and measure the sleeve bottom. The difference between cuff length and sleeve bottom is the measurement for two pleats. Prepare 1st side pleat at side seam. Prepare another side pleat at the same distance on the other side placket. (Fig 4)
- 6 Baste and stitch underside of cuff (unfused) to wrong side of sleeve bottom matching centre marks. (Fig 5)



7 Turn the cuff unit up and press seam allowance inside the cuff. Then press the cuff from folded edge.



8 Baste the sleeve bottom along with cuff edge through all layers. Stitch 2 mm away from edge along sleeve bottom and cuff. Lock the stitch and press. (Fig 6)



Attaching shirt collar

Objective: At the end of this exercise you shall be able to

- attach shirt collar.

- 1 Make a row of machine stitches on neck seam line leaving 0.75 cm seam allowance. Clip into neck seam allowance at a distance of 2 cm. This will permit the collar to fit smoothly on to the shirt. (Fig 1)
- 2 With right sides together match centre of stand (unfused side) and neckline. Baste the stand to the garment along the neck seam line. Stitch on seam line. Secure stitches at both ends. (Fig 2)
- 3 Press the seam flat and trim the seam allowance. (Clip seam allowance if the fabric is stiff or thick.) (Fig 3)
- 4 Press the seam allowance open, then towards collar stand. (Fig 4)
- 5 Bring the edge of fused collar part down and align it with the neck seam line. Pin and baste. (Fig 5)

Stitch on fused collar stand all around. Start stitching from centre on upper edge. Take care that no folds will come while stitching. Finish and press. (Fig 6)

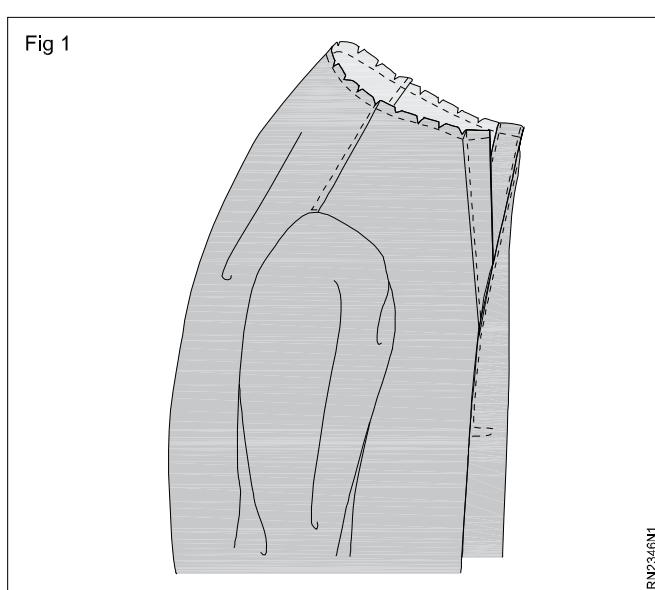
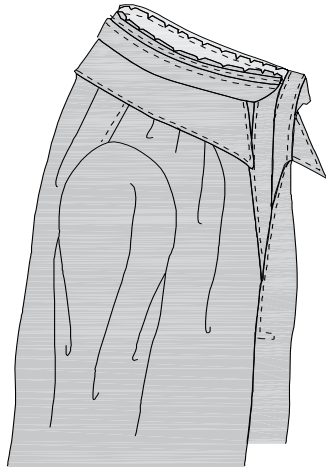
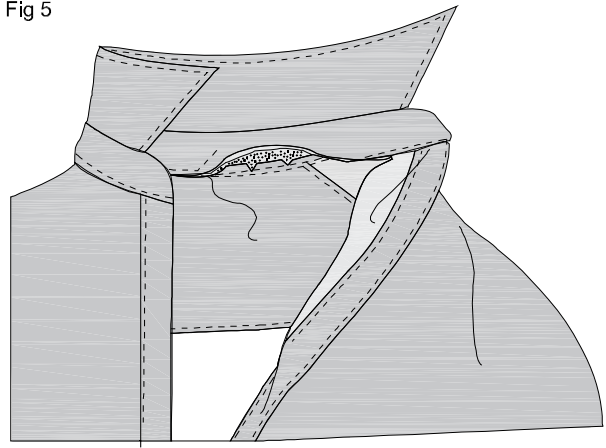


Fig 2



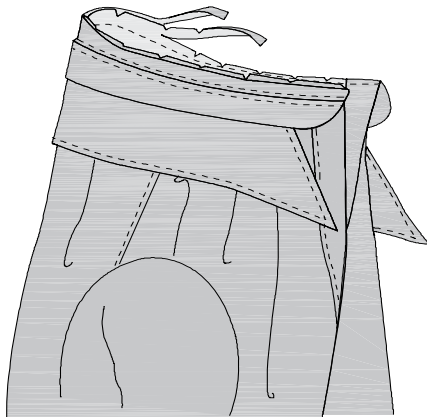
DRN23/6N2

Fig 5



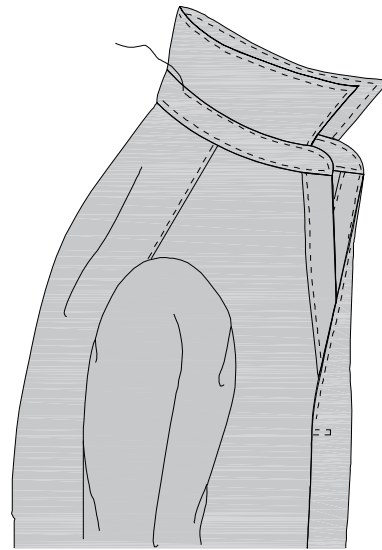
DRN23/6N5

Fig 3



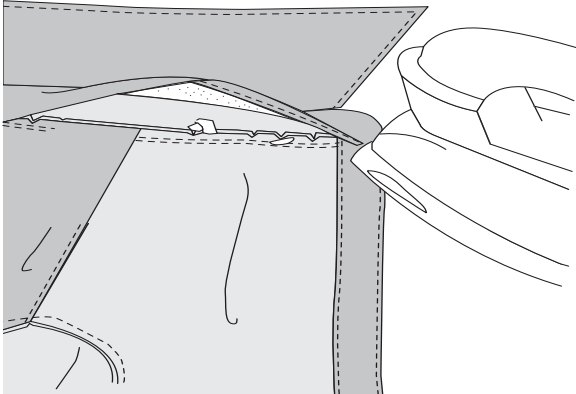
DRN23/6N3

Fig 6



DRN23/6N6

Fig 4



DRN23/6N4

Construct a gent's shirt - Style II

Objectives: At the end of this exercise you shall be able to

- draft and cut the paper pattern of t-shirt
- prepare the master pattern
- lay the fabric and cut the t shirt fabriccomponents
- sew and finish the t-shirt.

Material

1.40 x 1.27m poly cot
2 brown sheets

Measurements

Full length = 78 cm
Natural waist = 42 cm

Neck = 37 cm
Shoulder = 44 cm
Chest = 90 cm
Sleeve length = 25 cm
Solar width = 4 cm

Fig 1



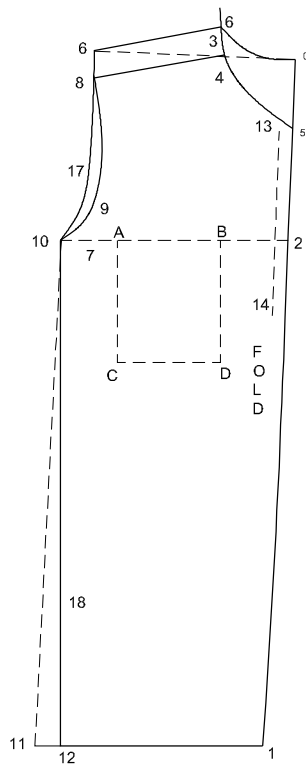
DRN23/601

Draft and cut the paper patter of T-Shirt

- 1 Lay one brown sheets on the drafting table with lengthwise folded.
- 2 Draft the pattern of t-shirt front part following the instructions for drafting.
- 3 Similarly draft the back part on the other brown sheet.
- 4 Draw the sleeve and collar drafting on the balance sheets available.

Fig 2 Instruction for Drafting

Front



$$0-1 = FL + 1 \text{ cm}$$

$$0-2 = ch/4$$

$$0-3 = ch/12$$

$$0-5 = 3-4$$

$$0-6 = sh/2 + 1 \text{ cm}$$

$$6-8 = 2.5 \text{ cm}$$

$$7-9 = 3 \text{ to } 3.5 \text{ cm}$$

$$1-10 = ch/4 + 4 \text{ cm}$$

$$11-12 = 2.5 \text{ cm}$$

$$5-13 = 0.75$$

$$13-14 = ch/4 + 2.5 \text{ cm}$$

$$7-A = 2.5 \text{ to } 3 \text{ cm}$$

Square out horizontally
and vertically from o

square down 3 to mark 4

join 4-5, shape neck 5-3

square down 6 to 7

join 3-8

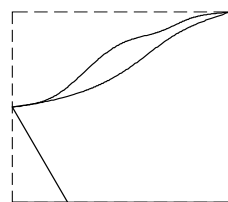
shape scye 8-9-10

square down from 10 to 11

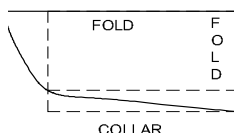
join 10-12

square down 13 to 14 for
placket marking

A-B is marked on 10-2 line



SLEEVE



COLLAR

Sleeve

Collar

$$A-C = B-D = ch/8 + 3 \text{ cm back}$$

$$0-15 = 0.75 \text{ cm}$$

$$3-16 = 3 \text{ cm}$$

$$17 \text{ is midpoint of } 6-7$$

$$12-18 = 10 \text{ cm or to taste}$$

shape 15-16 join
16-6

shape armhole
6-17-10

for slit marking cut
13-14 in layer of the
pattern and fabric

Pocket

$$A-B = C-D = ch/8 + 1.5 \text{ cm}$$

$$A-C = B-D = ch/8 + 3 \text{ cm}$$

TASK 1: Draft and cut the paper patter of T-Shirt

- 1 Lay one brown sheets on the drafting table with lengthwise folded.
- 2 Draft the pattern of t- shirt front part following the instructions for drafting.

- 3 Similarly draft the back part on the other brown sheet.
- 4 Draw the sleeve and collar drafting on the balance sheets available.

Pattern cutting

- 1 Cut the drafted paper pattern of t-shirt along the following cutting lines.
- 2 Leave sufficient space around each drafting and cut.

- 3 The cutting lines of T - shirt are:

Front	→	14-13-3-8-9-10-18-12-2
Back	→	0-15-16-6-8-17-10-18-12-2
Sleeve	→	refer ex.no.14.23
Collar	→	refer ex.no.14.25
Pocket	→	A-B-D-C-A

TASK 2: Prepare the master pattern

- 1 Add the below mentioned master pattern allowance to the cut paper pattern of t - shirts.
- 2 Cut all the patterns into master patterns with the added allowances for inturns, seams etc.
- 3 Name all these patterns with its description, like size, measure etc. for future reference.

INSTRUCTIONS FOR MASTER PATTERN

Front and back

Neck, shoulder, armhole	0.75 cm
Side	2 cm
Bottom turning	3 cm

Sleeve

Top	0.75 cm
Underarm side	2 cm
Bottom	3 cm

Collar

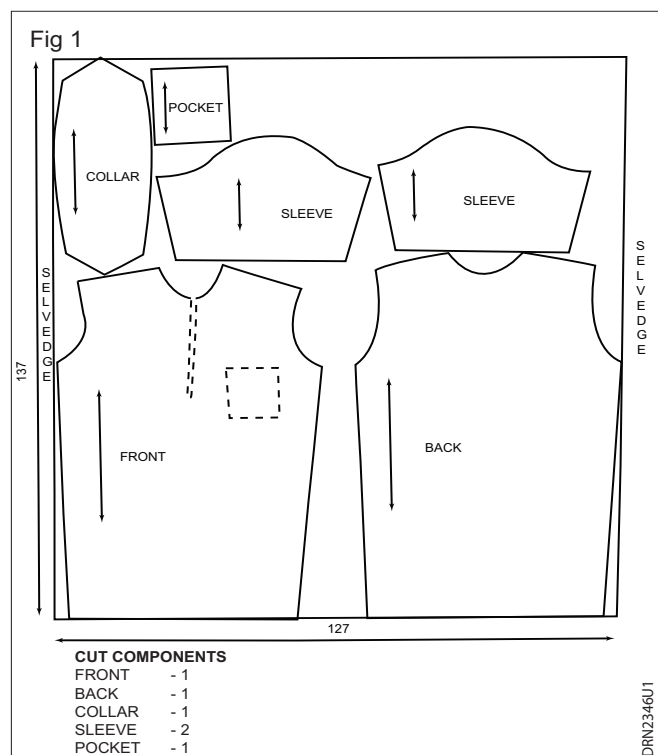
Lower edge	1 cm
Sides, upper edge	0.75 cm

Pocket

Pocket mouth	2 cm
All other sides	0.75 cm

TASK 3: Lay the fabric and cut the T-Shirt fabric components

- 1 Lay the fabric open on the cutting table with its wrong side facing.
- 2 Spread and arrange the master pattern of t-shirt economically on the fabric.
- 3 Mark the outline of the patterns, mark required number of components of the pattern transfer the pocket & slit marking to the fabric with a tracing wheel.
- 4 Remove the pattern.
- 5 Cut the fabric into t-shirt components on the marking using a sharp pointed scissors.
- 6 Cut notches at sleeve crown, slit open of the front and back part etc to set the positions. (Fig 1)



TASK 4: Sew and finish the T-Shirt

Style Features	Materials and Trimmings
• Open collar • Zipper placket	• Cut components of t-shirt • Matching colour sewing thread
• Patch pocket • Side slit	• Machine needle no.14

1 The cut components of T-shirt are:

Front 1

Collar 1

Back 1

Pocket 1

Sleeve 2

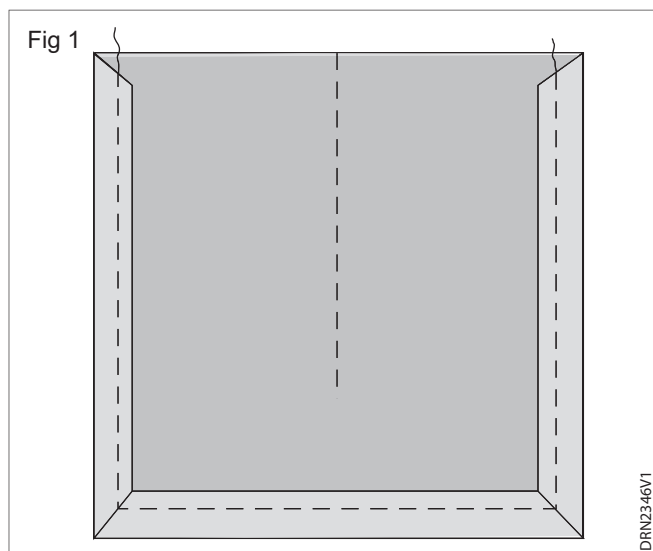
2 Stitch the centre front open with the zipper placket (SS.No.1).

- 3 Join front and back parts together with a seam at their shoulders.
- 4 Prepare and attach open collar to the neckline.
- 5 Stitch patch pocket with its mouth finished at the right hand side of the front bodice.
- 6 Finish sleeve bottom with machine stitching giving inturns.
- 7 Attach sleeve to the body part in the shirt sleeve method.
- 8 Stitch under arm seam and side seam till the slit mark.
- 9 Finish slit opening with double folds and stitch bottom with machine stitching.
- 10 Finishing, trim and press.

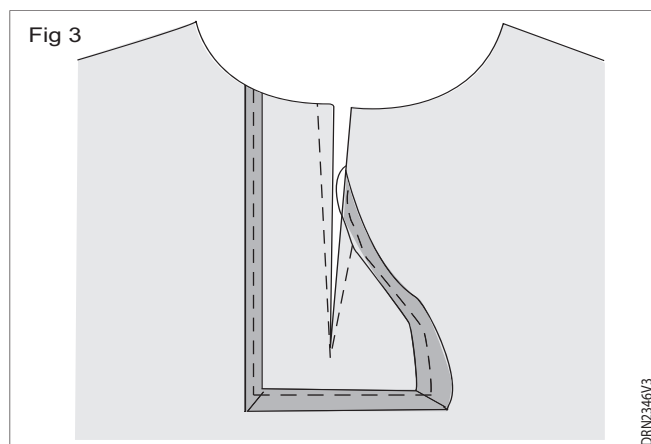
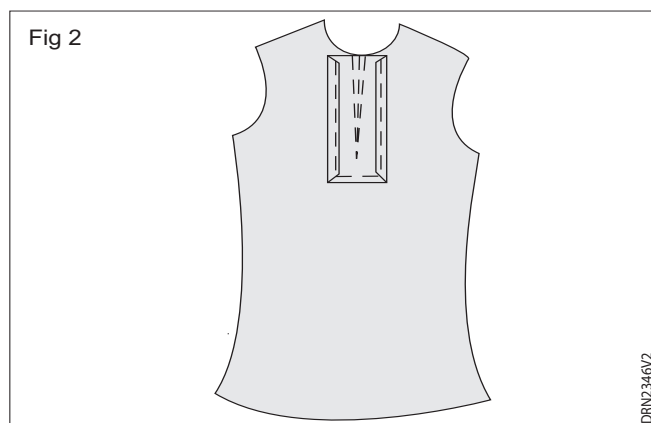
Centered application of zipper placket

Objective: At the end of this exercise you shall be able to
• stitch the zipper placket at the back open.

- 1 Measure and mark the length of front open the wrong side of the front part.
- 2 Take a facing piece of length equal to back open length and width of about 6 cm. Turn the edges of facing by 0.5 cm and leave the top edge. (Fig 1)



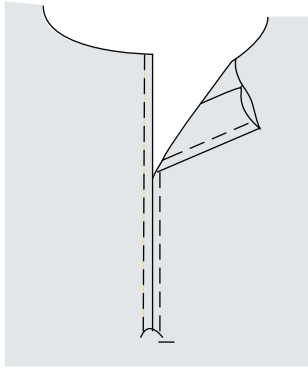
- 3 Place the facing piece on the front part with right sides together. match the centre lines and baste on the line.
- 4 Mark 5mm on both sides of the centre line on the top edge. Join two marks with bottom end of centre line in V-shape. (Fig 2)
- 5 Slash on the centre line leaving 2 mm at peak point. Turn the facing on the wrong side and press it gently to make out the edge.(Fig 3)



- 6 Stitch top seam from right side on the edges of the placket outlines.(Fig 4)
- 7 Open the zipper and place the right side of zipper on the wrong side of the fabric facing piece. Keep the chain

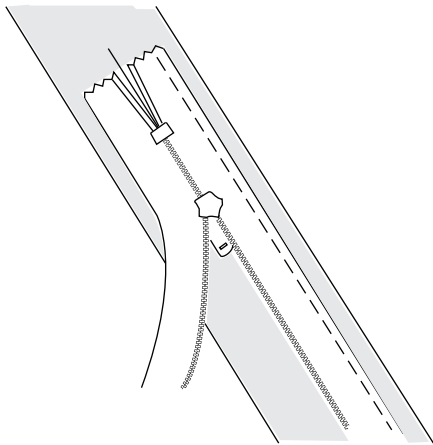
edge of the fabric up the placket opening mark. Baste the zipper tape with one seam allowance.(Fig 5)

Fig 4



DRN2346V4

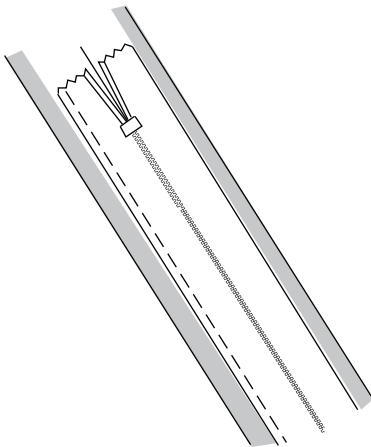
Fig 5



DRN2346V5

8 Close the zipper. Baste the other side of the zipper tape with other seam allowance.(Fig 6)

Fig 6

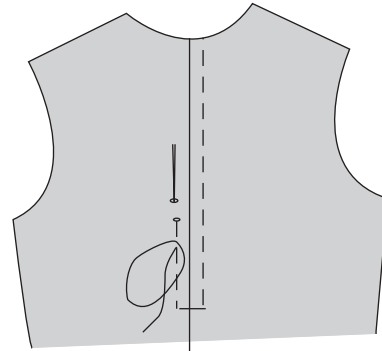


DRN2346V6

Lock of zipper end should be kept towards the end of the placket (opening).

9 Turn the fabric with right side up and spread the fabric as flat as possible. Now baste from right side through all layers of the fabric, 6mm away from seam line. Start basting from the seam line at the bottom end of the opening. (Fig 7)

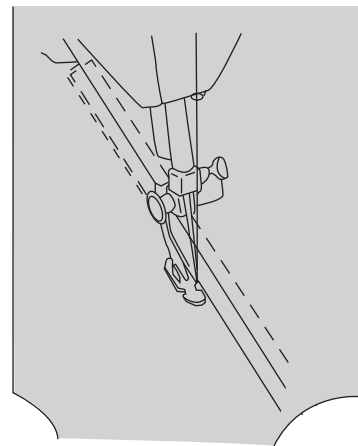
Fig 7



DRN2346V7

10 Start machine stitching from the right side along the basting from the top end of the fabric using a zipper foot. Stop in the end of opening just below the lock of the zipper. Make pivot and cross to other side and stitch up to the end of fabric.(Fig 8)

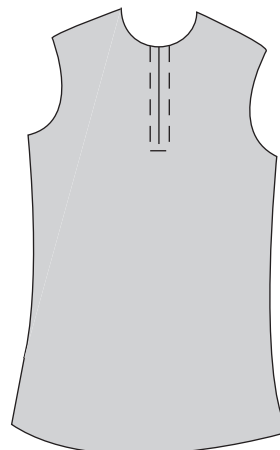
Fig 8



DRN2346V8

11 Remove basting and trim the threads. (Fig 9)

Fig 9



DRN2346V9

Construct a gent's trousers - Style I

Objectives: At the end of this exercise you shall be able to

- draft and cut the paper pattern of pleated trousers
- prepare the master pattern
- lay and cut the required fabric components for stitching a pleated trousers
- stitch and finish the gent's pleated trousers.

Material

1.66 x 1.50 m Terycot / denim

0.80 x 0.90 m poplin

2 Brown sheets

Measurements

Full length = 104 cm

Inner leg length = 73 cm

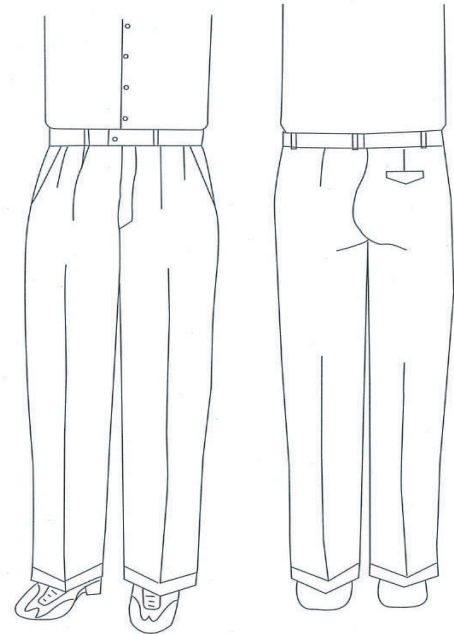
Waist = 76 cm

Hip = 92 cm

Bottom = 43 cm

Belt width = 4 cm

Fig 1



DRN2346W1

Front part

0-1	=	FI- waist band (4 cm)
1-2	=	ILL - 1 cm
2-3	=	ILL/2 - 5 cm
2-4	=	H/4 + 4 cm
4-5	=	H/12 - 1.5 cm
0-6	=	Same as 2-4
4-7	=	H/8 + 1.5 cm
4-8	=	4-5/2 + 0.75 cm
5-9	=	2 cm
4-10	=	H/12
2-11	=	4-10
2-12	=	½ of 2-5
3-13	=	1-14 = 2- 12
14-15	=	bottom / 4
14-16	=	14-15
13-18	=	13-17
6-19	=	1 cm
0-20	=	H/24 + 1 cm

Square out horizontally and vertically from 0

Square out from 1

Square out from 2

Square out from 3

Join

Extend 4 to 5 with a line square up from 4 and mark 6

Divide angle 6-4-5

Shape 6-7-8-5

Mark 10 at 6-4 line for bodyrise

Join 10-11

Square down 12 to mark 13 and 14

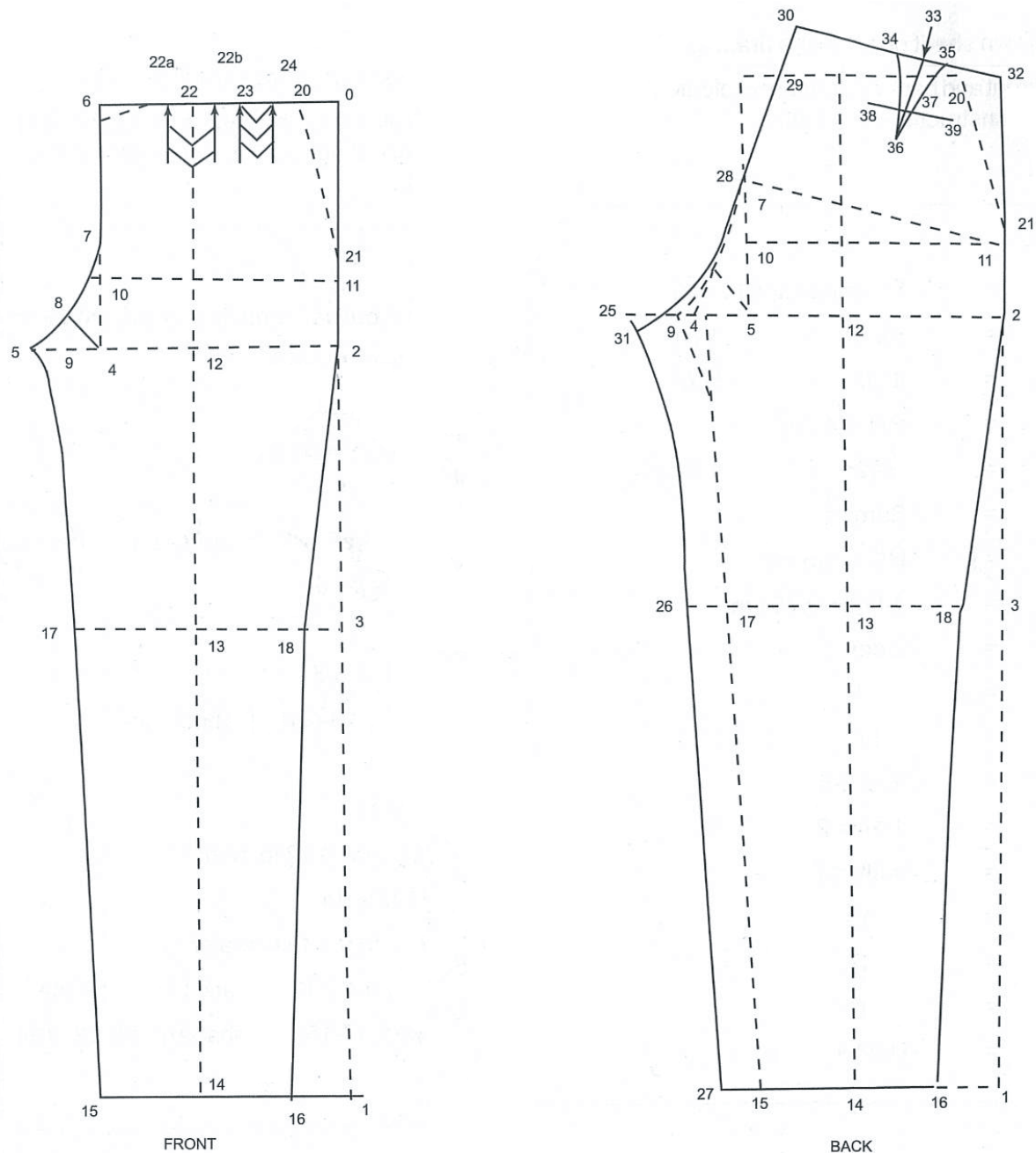
Join 12-12-14

Join 15 to 9 with a straight line

Square out 3 13 to mark 17 at 15-9 line

Shape 5-17-15 (liner shape) and 2-18-16 (outer shape)

Fig 2



TASK 1: Draft and cutting the paper pattern of gent's pleated trousers

- 1 Lay one brown sheet open on the drafting table.
- 2 Draft the front and back part pattern of pleated trousers following the instructions for drafting.
- 3 Leave enough space around each drafting.
- 4 Draft all the other patterns waistband fly, fly shield, pocket jetting, pocket pouch etc on the other brown sheet.

Pattern cutting

Cut the drafted paper pattern of pleated trousers along the following cutting lines, leaving enough space around preparing the master pattern.

Front → 0-21-11-2-18-16-14-15-17-5-3-7-19-22-23-24-20-0

Back → 32-21-11-2-18-16-14-15-27-26-31-28-30-33-32

Fly → 40-42-45-4-44-43-8-7-6-40

Waist band → 0-8-7-6-13-5-4-0-14-9-10-11-12-13-7-14

Hip pocket jetting → 0-1-2-3-0

Side pocket jetting → 0-1-3-2-0

Flap → 0-1-5-3-2-4-0

Belt carrier → 0-1-3-2

Hip pocket pouch → 0-1-2-3-0

Side pocket pouch → 0-4-5-6-7-1

11-21 = 2 cm

22-22a = 22-22b = 2 cm (for pleat)

22b-23 = 3 cm (distance between two pleats)

23-24 = 3cm (for pleat)

Back part

9-25 = 5 to 6.5 cm

17-26 = 2.5 cm

15-27 = 2.5 cm

7-28 = 2.5 cm

6-29 = 2.5 cm

29-30 = 2.5 cm

25-31 = 1 cm

30-32 = $W/4 + 3$ cm

32-33 = $H/12 + 1.5$ cm

33-34 = 33-35 = 1.25 cm

33-36 = $H/8$

33-37 = $H/12$

37-38 = 37-39 = $H/16$

Fly

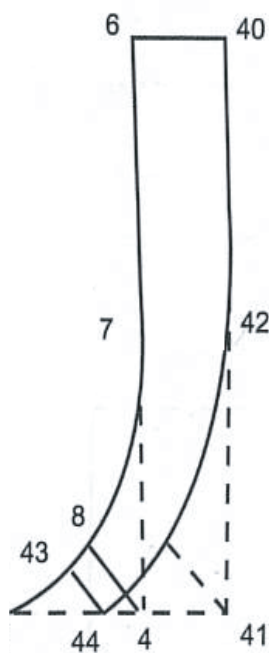
6-40 = 4-41 = $H/24$

41-42 = $H/6$

8-43 = 1 cm

43-44 = 1.75 cm

41-45 = $H/24$



Join 20 and 21 for slant pocket

Square up from 12 and mark 22

Copy the front pattern (dotted lines) which will help you to create back pattern as follows

Extend line 9 to 25

Shape 25-26-27

Mark 28 from 7 for seat angle. (it should be increased for an erect figure and reduced for a stooping figure)

Join 4-28 with a straight line and produce it to mark 29

Extend line 29 to mark 30

Shape 30-28-31 for fork as shown

Join 30-32 with a straight line

Set the square on the point 33 along the line and draw square line

Mark dart width on either side of 33

Join 33-36

Draw parallel line with 32 - 30 dart point

Join 38 - 39 (hip pocket)

Copy the lines 6-4, 4-5 from front part and shape 6-19-7-8-5 as in front fly line

Join 40-41

Draw parallel line with 4-8 from 43

Divide angle 42-41-4

Shape 44-45-42-40

Fly shield (lining)

Copy the drafting of fly

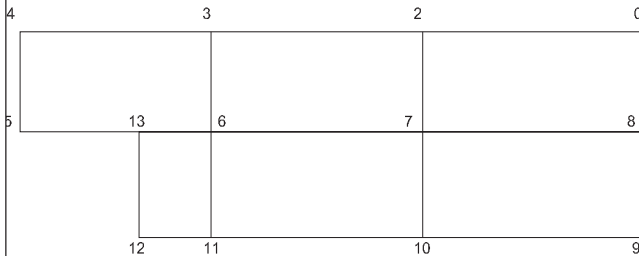
Extend the shape 6-7-8-43 and mark 46

$$43-46 = 5 \text{ cm}$$

Draw a line from 46 parallel to 43-44

$$46-47 = 1.5 \text{ cm}$$

Extend the shape 42-44 to 47



Waist band

Square out horizontally and vertically from 0

Square out from 1

$$0-1 = 4 \text{ cm}$$

$$0-2 = 2-3 = W/4$$

$$3-4 = H/8$$

$$1-8 = 0.5 \text{ cm}$$

$$1-9 = 4 \text{ cm}$$

$$9-10 = 10-11 = W/4$$

$$11-12 = H/24$$

$$1-14 = 0.5 \text{ cm}$$

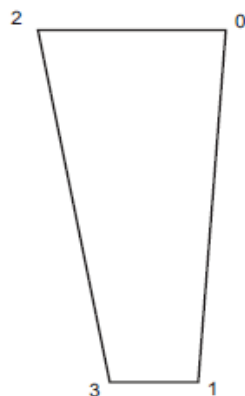
square down from 2,3,4 and mark 5,6 and 7

Join 7-8 square down from 1

square up and mark 13 join 7-14



HIP POCKET JETTING



Hip pocket jetting refer Ex 14.13

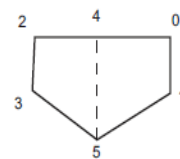
Side pocket jetting refer Ex 14.13

Flap

Belt carriers

0-1 = 5.5 cm square out horizontally and vertically from 0

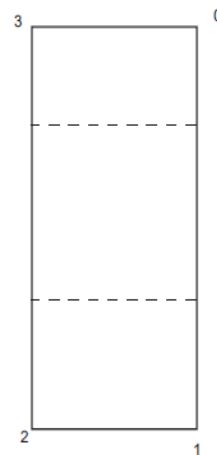
0-2 = 1.5 cm square out from 1 square down from 2 and mark 3



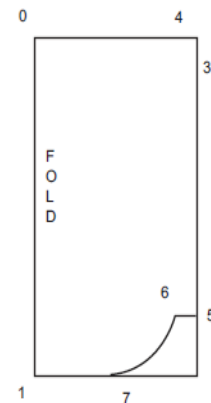
FLAP



BELT CARRIER



HIP POCKET POUCH (LINING)



SIDE POCKET POUCH

Jetting for hip pocket

$$0 - 1 = 5 \text{ cm}$$

$$1 - 2 = 30 - 31 + 2 \text{ cm}$$

Square out horizontally and vertically from 0.

Square upto 3

Jetting for side pocket

$$0 - 1 = H/6 + 4 \text{ cm}$$

Square out vertically and horizontally from 0

Square down from 2 and square out from 1 and mark 3.

Flap

$$0 - 1 = 3.5 \text{ cm}$$

$$0 - 2 = H/8$$

$$2 - 3 = 0 - 1$$

$$0 - 4 = 1/2 \text{ of } 0 - 2$$

$$4 - 5 = 5 \text{ cm}$$

Square out horizontally and vertically from 0

Square down from 2

Square down

Join 1-5 and 5-3

Hip pocket pouch

$$0 - 1 = H/3 + H/12$$

$$1 - 2 = 30 - 31 + 5 \text{ cm}$$

Square out horizontally and vertically from 0

Square up from 2 and mark 3

Side pocket pouch

$$0 - 1 = H/3 + 5 \text{ cm}$$

$$1 - 2 = H/6 + 2.5 \text{ cm}$$

$$3 - 4 = 2.5 \text{ cm}$$

$$2 - 5 = H/12$$

$$5 - 6 = 1 \text{ cm}$$

$$2 - 7 = 1/2 \text{ of } 2 - 1$$

Square out horizontally and vertically from 0

Square up and mark point 3

Join 4-5, square out from 5

Shape 6 - 7

— — — — —

TASK 2: Prepare master pattern

- 1 Add the following allowances to the cut paper pattern for seams, hems, inturns, opening etc.

Instructions for master pattern

Original material

Front and back

Bottom turning 7 cm

Side and inside leg seam 1 cm

Waistline 1 cm

Fly line on back 0.75 cm

Top of back seat seam 2.5 cm taper to 1 cm at crotch

Waist band

All three sides 1 cm

Centre back 2.5 cm

Fly	0.75 cm all around
Jetting	1 cm all around
Flap	0.75 cm all round
Belt carrier	0.50 cm all around

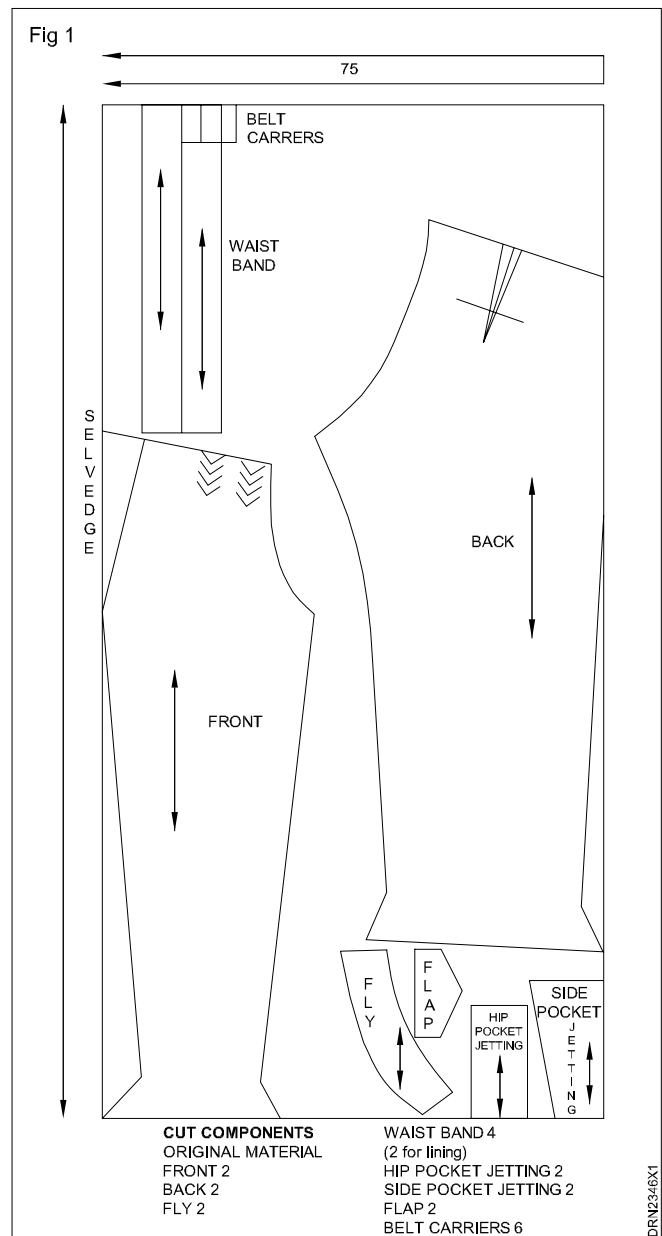
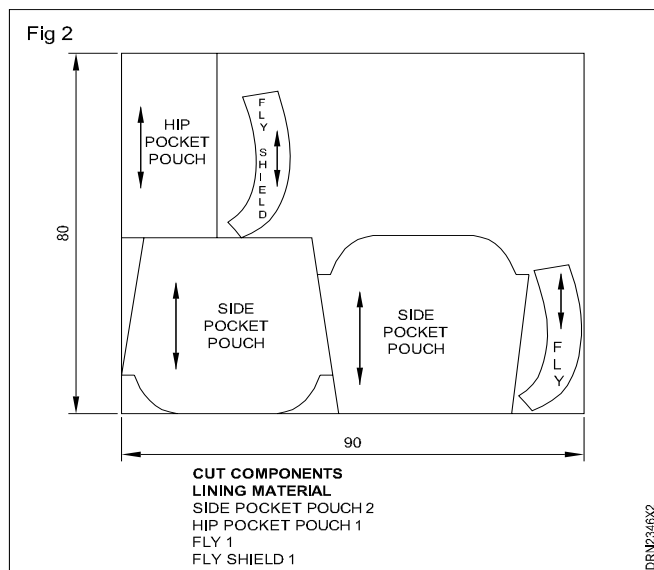
Lining material

Pocket pouches	1 cm all around
Hip pocket pouch	1 cm all original
Fly	as per original
Fly shield	1.5 cm inner edge 0.75 cm all other edges

- 2 Cut the excess brown sheet after adding the master pattern allowances to each paper pattern.
- 3 Name the patterns with their measures for future reference.

TASK 3: Lay and cut the required fabric components

- 1 Lay out double width fabric open on the cutting table with right side facing.
- 2 Fold the fabric width wise into equal halves, the width to measure 75 cm.
- 3 Spread and arrange the master pattern of pleated trousers as required.
- 4 Check for the grainlines, numbers of components required.
- 5 Mark the outline of the patterns using a marking chalk.
- 6 Similarly lay the lining material open on the cutting table.
- 7 Arrange and mark the outline of both the pockets pouches fly and fly shield.
- 8 Remove the patterns.
- 9 Cut the marked components using a sharp pointed scissors.
- 10 Cut notches at pocket markings, inturns etc.
- 11 Fold and tie all the pleated trousers components together, to prevent from missing. (Fig 1 & 2)



TASK 4: Construct the gent's pleated trouser

The cut components of pleated trousers are

Front	2
Back	2
Fly	2
Waist band	2
W.band for lining (original)	2
Hip pocket jetting	2
Side pocket jetting	2
Flap	2

Belt carriers	6
(Lining material)	
Side pocket pouch	2
Hip pocket pouch	1
Fly	1
Fly shield	1

- 1 Prepare the slant pockets on the marks in front sides (SS.No.1)
- 2 Set the knife pleats in front on marks and baste them fold of pleat should be directed towards the pocket.

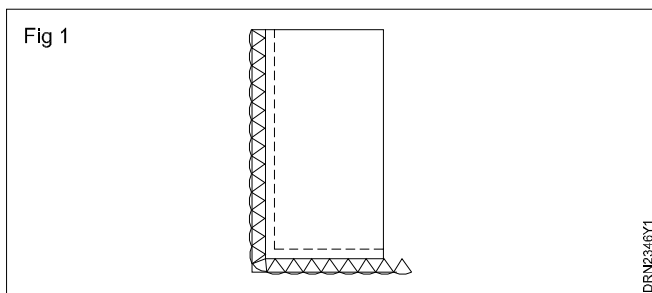
- 3 Stitch the darts on marks at the back side. Press and set towards seat seam line.
- 4 Prepare hip pocket with flap on right side of the back. (SS.No.2)
- 5 Prepare the zip fly (SS. No 3)
- 6 Join sides of front and back, with
- 7 Prepare the belt and attach on waist line. (SS.No 4)
- 8 Stitch the inside leg seam joining front and back together.
- 9 Stitch crotch from back to front up to the zip fly forming cross seam at the joint of seam lines.
- 10 Lock at the end of fly from right side, making a triangle of 0.5 cm with double row clif stitching.
- 11 Clip crotch seam allowance on the shaped portion in diagonal direction up to 5 mm. Press it open and set flat by stretching. Stitch self bound seam on seam allowance. Press and finish at the top with hemming.
- 12 Inside the s&ert sew the edges of lower end of the shield lining to crotch seam allowances. Be careful, stitches should not be visible on front side.
- 13 Prepare five belt carriers(SS.No.5).Fix one belt carrier on the waist band above each front pleat, one on back centre seam and one in center between centre seam and pleat.
- 14 Finish the bottom line with broad hem.

Fix and stitch one pant hook in the centre of the extended edge at waist band on the wrong side. Fix another hook on waistband above the zip fly on wrong side. Be careful that the edge of hook and stitches are not visible from front side.
- 15 Fix eyes on the other side of waist band (matching with the position of the hooks).
- 16 Trim the threads, finish and press.

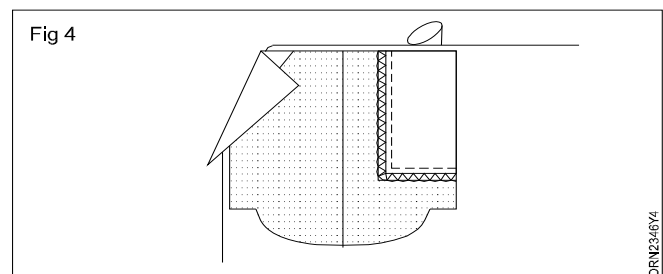
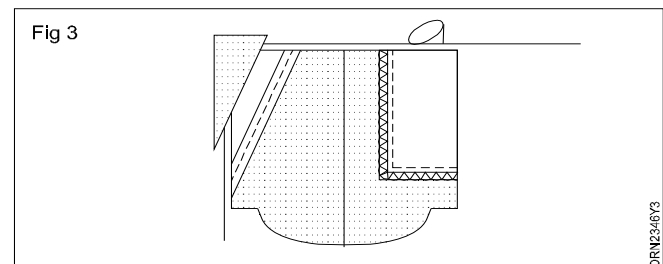
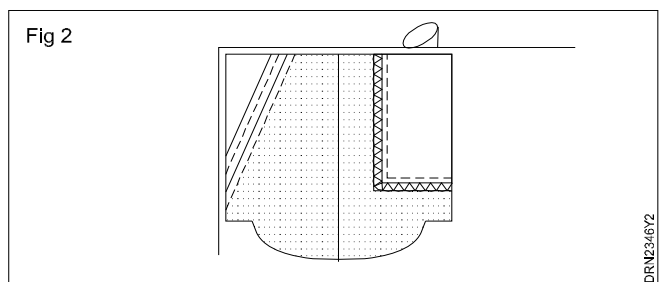
Slant pocket

Objective: At the end of this exercise you shall be able to
• stitch slant pockets in front part.

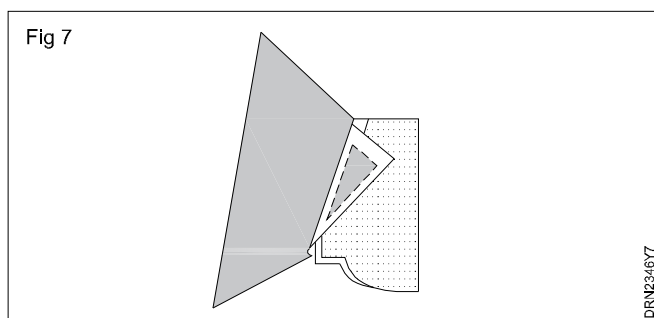
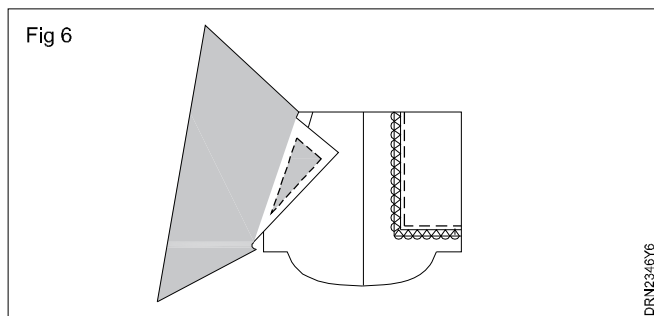
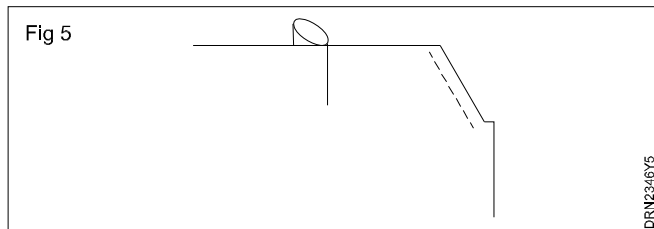
- 1 Take one jetting over lock one long short edge. (Fig 1)



- 2 Place the pocket pouch on the trouser with right side of the pocket pouch and wrong side of the original material together match side edges.
- 3 Baste both the pieces together from right side slightly away from the mark line. Cut a tape of thin cloth on straight gain 1 cm wide. (Woven tape/selvage of cloth can also be used.) Place the tape edge along the basting line on wrong side of the pocket pouch and stitch along the centre of the tape. Place jetting piece on the other side of the pouch piece with right sides together and raw edges matching at top and side. Baste and stitch along the over locked edges. (Fig 2)
- 4 Cut off the pocket pouch cloth along the outer edge of tape. (Fig 3)
- 5 Fold the triangular portion of original cloth on mark towards wrong side on pouch piece, iron gently. (Fig 4)
- 6 Turn pocket and original cloth together with right sides upwards. Make a top stitch from right side, 0.75cm always from the folded edge. (Fig 5)



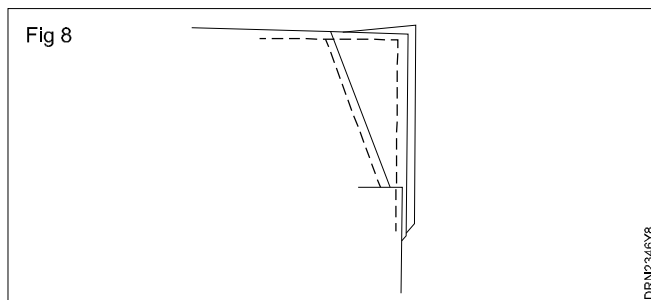
- 7 Unfold original cloth and pocket pouch. Turn the raw edge of the original piece which forms a triangle inside by 0.5cm and stitch with the pocket pouch. (Fig 6)
- 8 Fold the pouch piece length wise with right sides together and matching the round shape. Stitch the edge. (Ref.ss.no.3) (Fig 7)



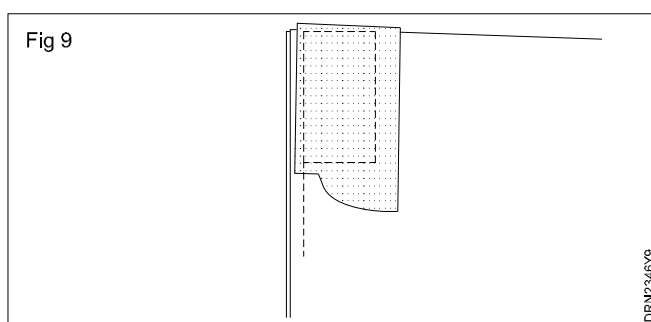
- 9 Turn the pocket pouch right side out and set the seam in centre. Place the pocket mouth flat over the jetting piece matching side and top edges of pocket pouch and original piece.

Take care that the top slant line of the pocket edge is placed 5cm away from the top corner of jetting piece.

- 10 Baste side length of the original piece along with the jetting and pocket pouch below the pocket mouth and stitch on the top of the pocket slant line 2mm away from the folded edge upto 2cm below the top edge and make firm tacking. (Fig 8)



- 11 Take the other piece of the original cloth, place one over the other with right sides together, pocket pouch wards.
12 Stitch side seam leaving 1 cm seam allowance. (Fig 9)

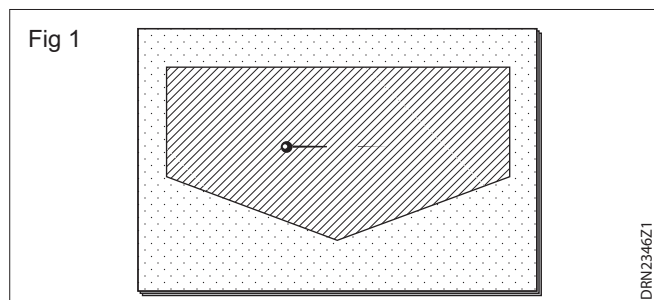


Hip pocket with welt and flap

Objective: At the end of this exercise you shall be able to

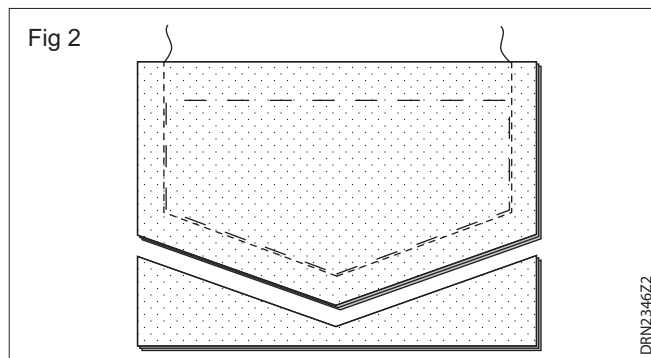
- **stitch hip pocket with welt and flap on back part.**

- 1 Place original flap pieces over each other. Right sides together. Place interlining piece over each other. Right sides together. Place interlining piece over it. Lay the flap paper pattern on the interlining piece, 1cm below the top edge and pin. (Fig 1)

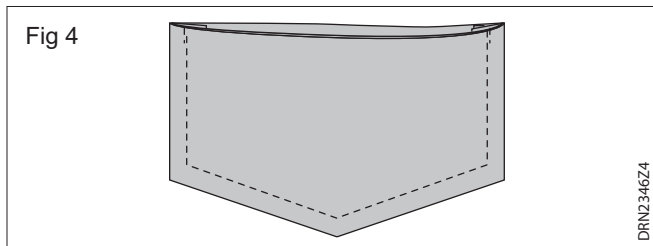
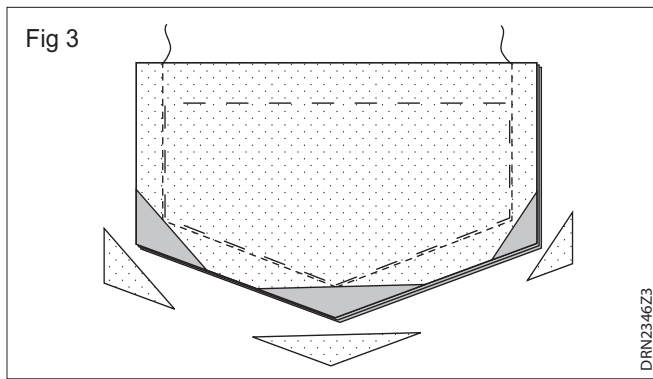


- 2 Mark along the edges of flap pattern. Baste on marks' leaving top edges. Remove pin and paper pattern. Stitch along basting, lock stitches at end.

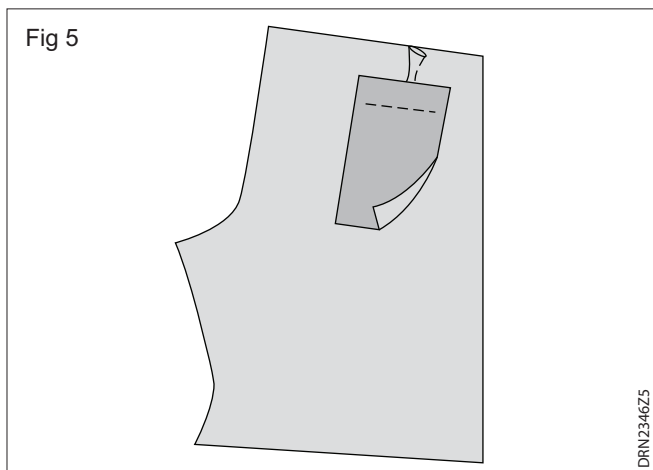
- 3 Cut the extra material from all the 3 sides leaving 0.75cm as seam allowance. (Fig 2)



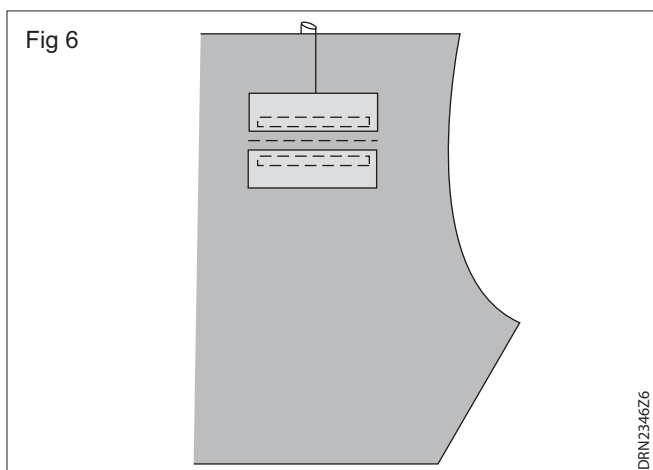
- 4 Cut the corners only from the interlining piece. (Fig 3)
5 Turn the flap unit out maintaining the corner shape and press. Make top seam 0.5 cm away from the stitched edges. (Fig 4)



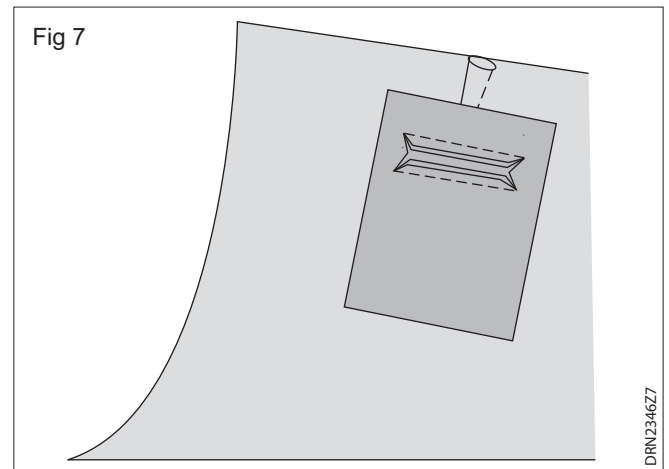
- 6 Take pocket pouch piece With wrong sides together place the pouch piece exceeds 3.0cm above, the pocket mouth mark. Matching the center of both the pieces, baste along the mouth mark. (Fig 5)



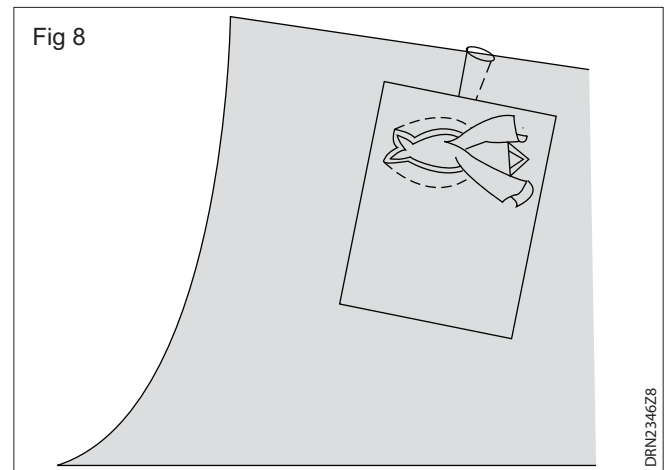
- 7 With right sides together, place both the jetting pieces on the sample piece along with pocket mouth mark right sides together.
- 8 Baste and stitch 0.5cm away on both sides only on pocket mouth. Lock stitches properly. (Fig 6)



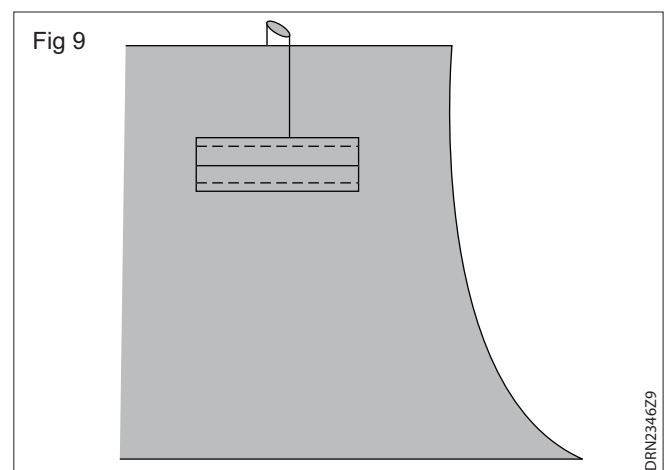
- 9 Remove basting and cut along the mouth mark through both the layers (main piece and pouch piece) very carefully. Stop 1cm before ends, lift corners of jetting pieces and cut diagonally into the four corners forming small triangles at each end. (Do not cut into stitches and jetting pieces.) (Fig 7)



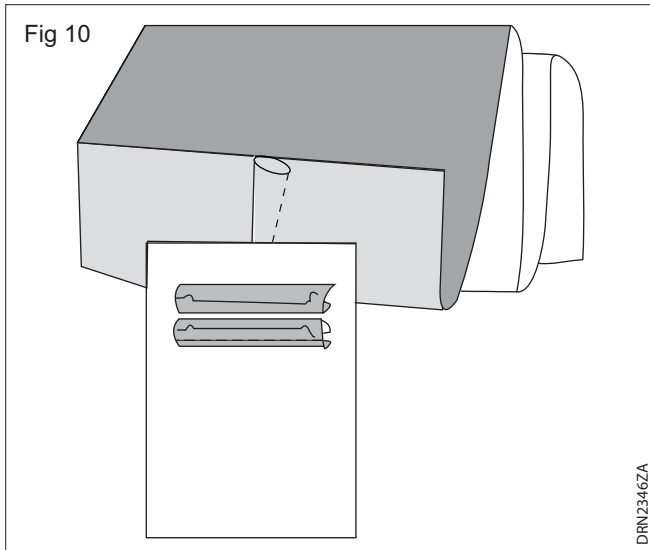
- 10 Gently push the jetting pieces through the cut to the wrong side. (Fig 8)



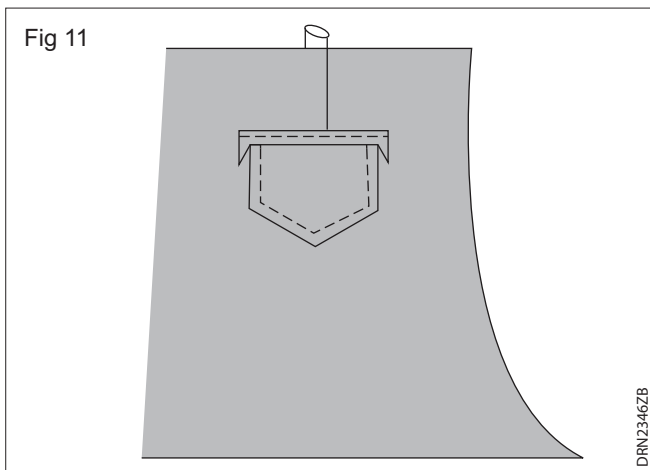
- 11 Wrong from right side of the original piece.
- 12 Fold and press jetting to form 0.5cm welts with their folds matching in the center of the opening. Baste along both the seam lines. Stitch along basting at lower crevice and lock the seam. (Fig 9)



13 Turn the whole unit to the wrong side. Fold the original piece back. Turn the lower edge of jetting piece by 0.5cm inside and top stitch with pouch piece. (Fig 10)

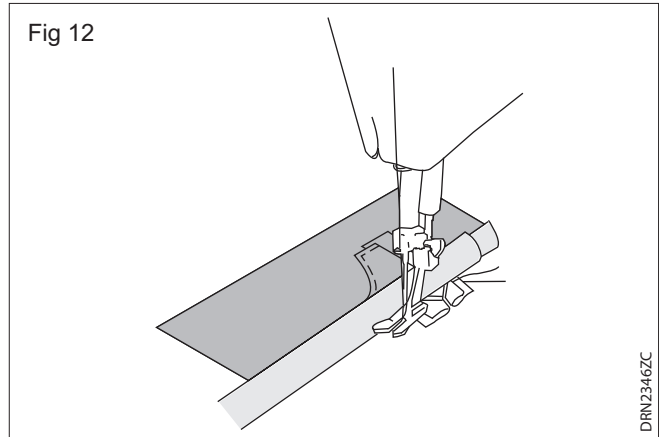


14 Take the prepared flap piece and insert into the pocket mouth and match seam line on top of the flap with the seam line of upper welt and baste. Stitch at the upper crevice and lock the seam. (Fig 11)



15 Place the sample on the machine right side up. Fold back the side edge of the original piece and pouch piece to expose tiny triangle at one end of the pocket mouth.

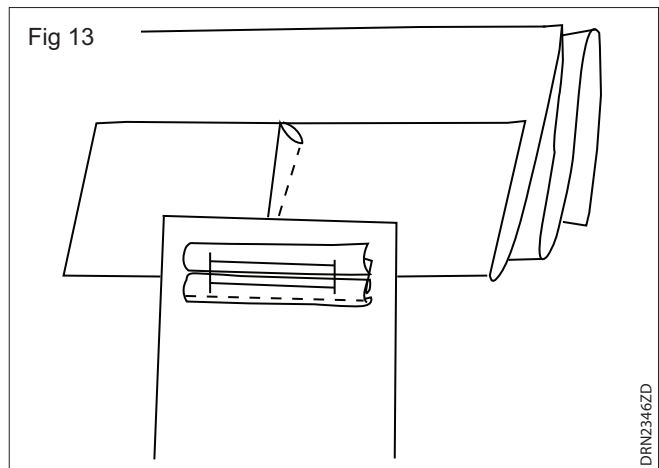
Secure the end of triangle by double seam (care should be taken that stitch must be very close to the cut). (Fig 12)



16 Repeat the process for the other end.

17 Now work from wrong side:

18 Turn off long edge of pouch piece inside by 1cm and fold the pouch on the marked line (horizontal) and baste the sides up to the waist line. Finish with double seam. (Fig 13)



19 Stitch one bar one fan button hole in the center of flap 0.75cm away from the lower edge.

20 Stitch the button matching to button hole.

Zip fly

Objective: At the end of this exercise you shall be able to

- **prepare the zip fly in front of pleated pant.**

- 1 Take two fly pieces (left fly is facing, right fly is shield) and their linings. Clip the seam allowance on point 11 in front and fly (see instructions for drafting). Take left fly (=facing part) and lining. Stitch on outer round shape, right sides together. (Fig 1)
- 2 Turn right side out and stitch on the edge of previous seam. (Fig 2)
- 3 Place closed zip on the fly piece wrong side of zip up; leave 0.5 cm from the raw edge and 1 cm above the clip. Baste 6 mm away from the teeth of zip. Stitch with double seam. (Fig 3)
- 4 Baste raw edge of facing and lining with left front of part. Match clip of facing and fly line. Be careful that the edge of zip is not caught by stitches. (Fold zipper back and if necessary pin it to hold it out of the way). Stitch along the basting line from dip to waist edge. (Fig 4)
- 5 Turn facing on seam line away from the front piece. From right side stitch through the facing and all seam allowances close to the edge of facing up to clip and lock the stitch. (Fig 5)
- 6 Fold the facing towards wrong side on the seam line. Baste close to the fold to hold facing in position. From

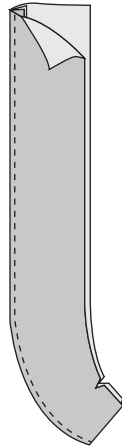
the right side baste a guide line 3 cm away from the fold, maintaining the shape of fly. Stitch close to the basting line. (Fig 6)

Fig 1



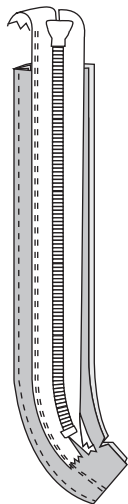
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Fig 2



DRN2346ZA2

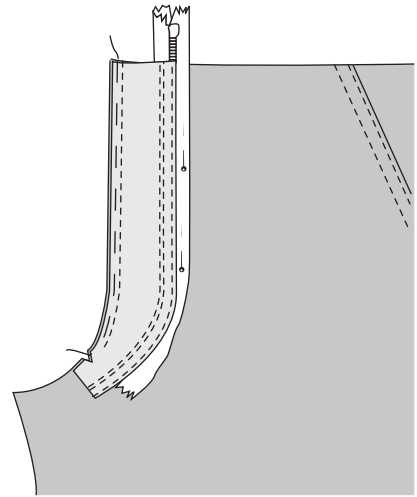
Fig 3



DRN2346ZA3

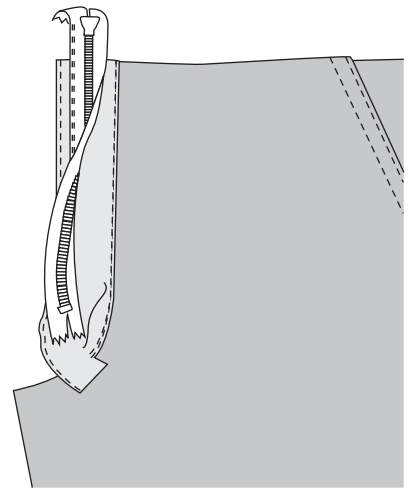
- 7 Stitch the right fly (shield): Take right sides of fly and lining together. Baste and stitch on outer shape. Cut notches on the round shape. (Fig 7)
- 8 Turn right side out. Press and set the outer edge and baste on it up to end. Turn also the edge of the balance part of lining. Cut notches on the inner curved shape of lining. (Fig 8)

Fig 4



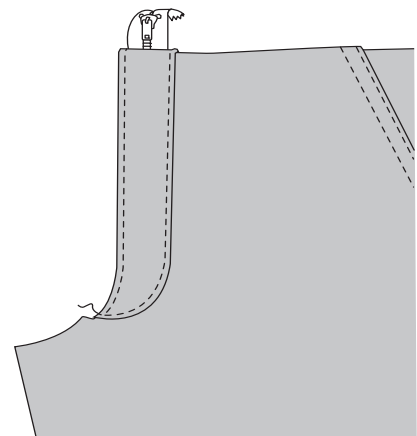
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Fig 5



DRN2346ZA5

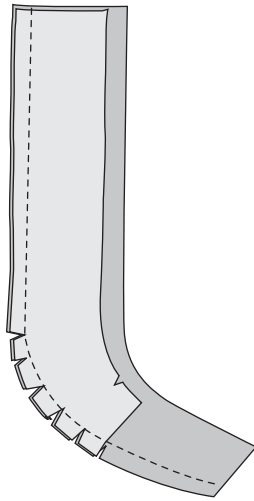
Fig 6



DRN2346ZA6

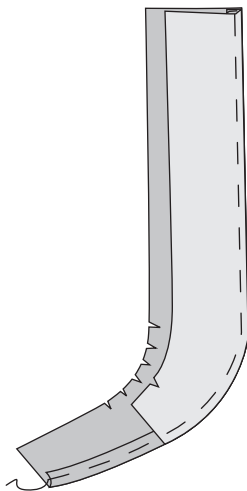
- 9 Fold the edge of lining by 1.5 cm to wrong side. Align edge of lining and shield. Baste and press on the lining. (Fig 9)
- 10 Open the zip. Baste the unattached zip part to the fly shield, wrong side of zip on right side of fly shield. Stitch along the basting but don't stitch the shield lining. Be careful: the position of the zip should be same as in left side facing. (Fig 10)

Fig 7



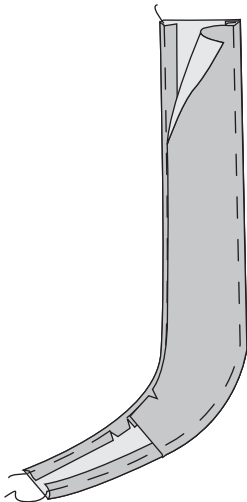
DRN2346ZA7

Fig 8



DRN2346ZA8

Fig 9



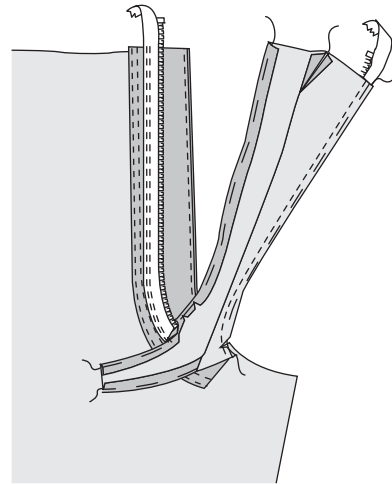
DRN2346ZA9

11 Close the zip. Place right front piece under left front piece with right sides together. Edge of fly line of right front has to extend the fly line of left front by 1 cm. Baste zip and shield on the right front short piece along the fly line. Stitch over the previous seam line up to the clip. Turn away lining piece. (Fig 11)

12 Place short flat on table with wrong side upwards. Turn the seam allowance to shield and right front piece towards right front portion. Cover the shield and seam

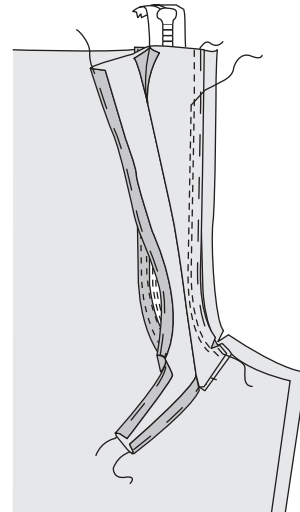
allowance with lining. Baste it. Be careful that the lining is flat on shield, so that no folds and wrinkles come in it. (Fig 12)

Fig 10



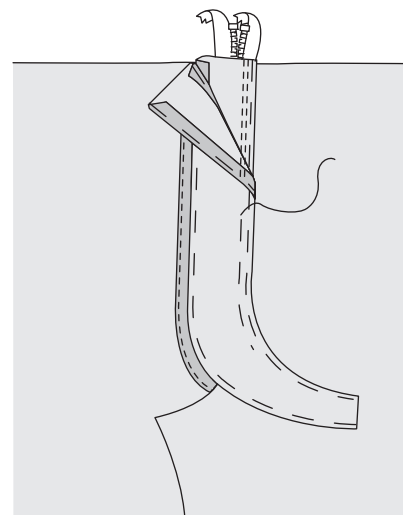
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Fig 11



DRN2346ZAB

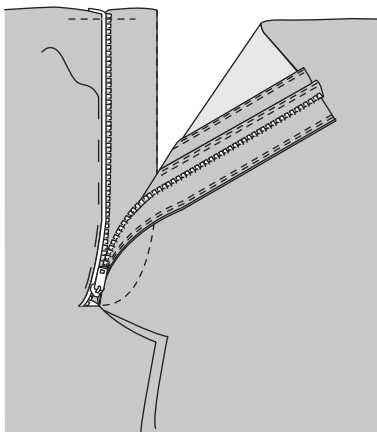
Fig 12



DRN2346ZAC

13 Turn the garment to the right side. Stitch close to the left fly seam through all layers. Tack zip flat on waistline on both sides 0.5 cm below the waist-line. Trim the edges at the top. (Fig 13)

Fig 13



DRN2346ZAD

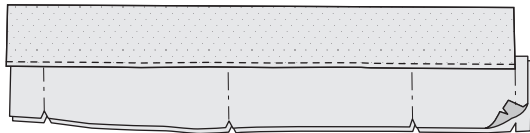
Waist band

Objective: At the end of this exercise you shall be able to

- **make and fix two-piece waist band with interling in boy's short.**

- 1 Since waist band has a joint in centre back it consists of 2 outer pieces, 2 inner pieces (lining) and 2 interlining (buckram) pieces.
- 2 Place the left waist band piece, over its lining, right sides together. Keep the extended portion to your right hand side. Place the interlining on upper side over the seam allowance in opposite direction.
- 3 Baste over the interlining and stitch at a distance of 2 mm from edge. (Fig 1)

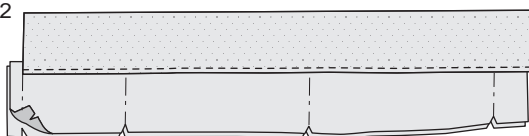
Fig 1



DRN2346ZB1

- 4 Place and stitch the right waist band piece same as the left but keep extended portion for shield on your left side. (Fig 2)

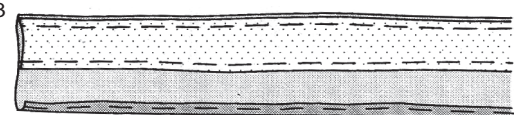
Fig 2



DRN2346ZB2

- 5 Turn both waist bands over the interlining, baste it on both sides of waist band pieces. Turn 1.5 cm the raw edge of lining towards wrong side and baste it. (Fig 3)

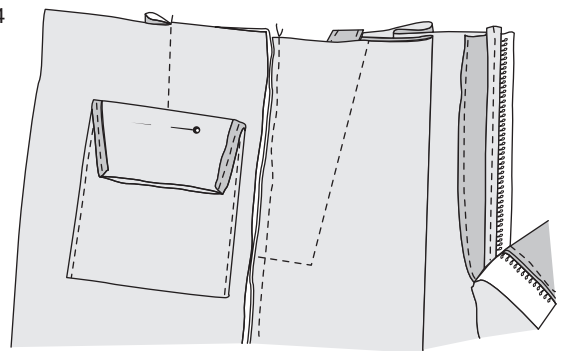
Fig 3



DRN2346ZB3

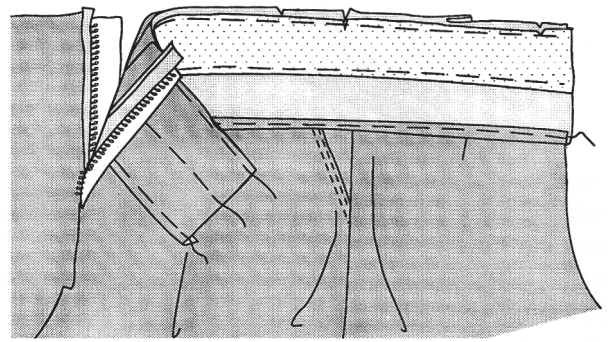
- 6 Pin the top edges of hip pocket down from the waist line. (Fig 4)
- 7 Set waist band on waistline matching balance marks: left waist band with left front and right waist band with right front. Pin and baste. (Fig 5)

Fig 4



DRN2346ZB4

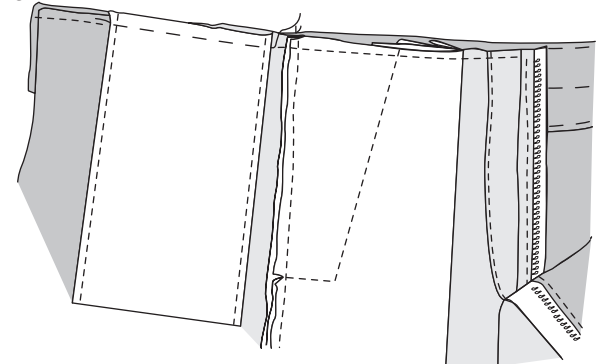
Fig 5



DRN2346ZB5

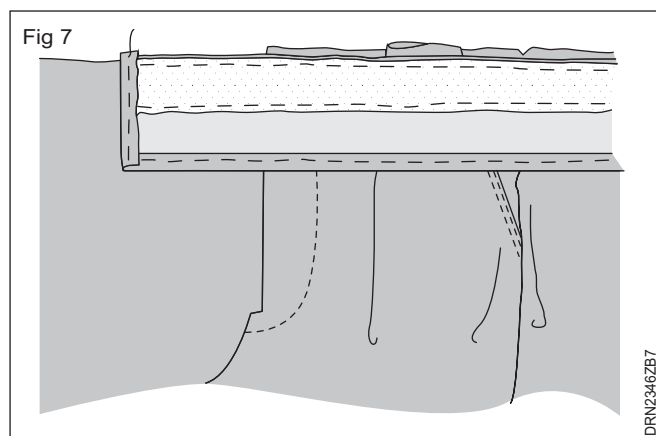
- 8 Unfold the pocket and baste it to seam line. Trim the edges (Fig 6)

Fig 6

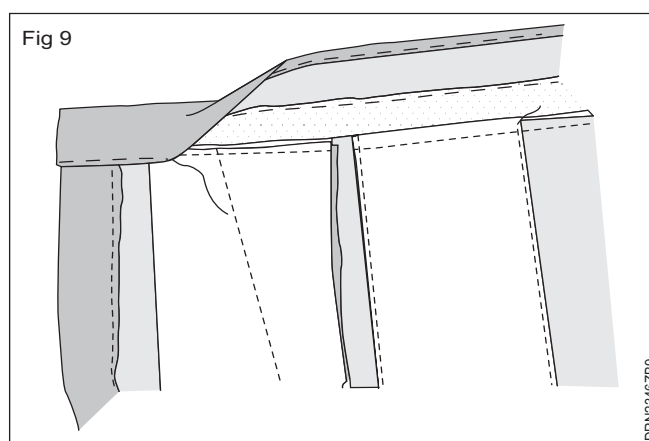
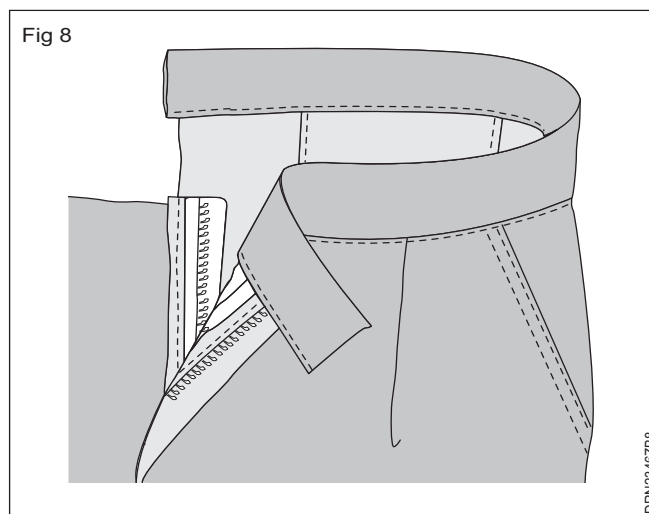


DRN2346ZB6

- 9 Turn the seam allowance on the extended portion of waist band. Press and baste it. (Fig 7)



- 10 Turn the waist band upwards and press on waistline. Fold waist band on centre line matching balance marks. Press and baste. Stitch from right side of waist band in the crevice of previous seam line. (Fig 8)
- 11 Turn to the right side. Stitch in the crevice of waist seam line.
- 12 Finish the end of extension with blind hemming.
- 13 Finish the right waist band in the same manner. (Fig 9)

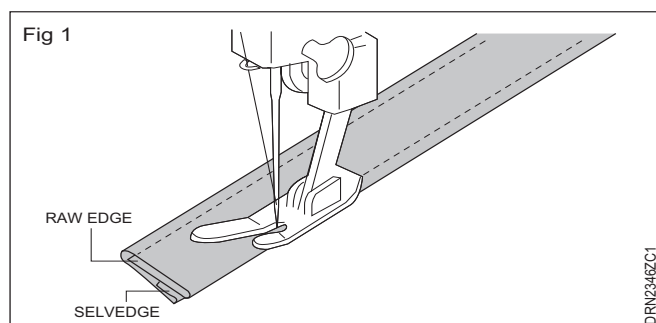


Belt fixing at waist band

Objective: At the end of this exercise you shall be able to

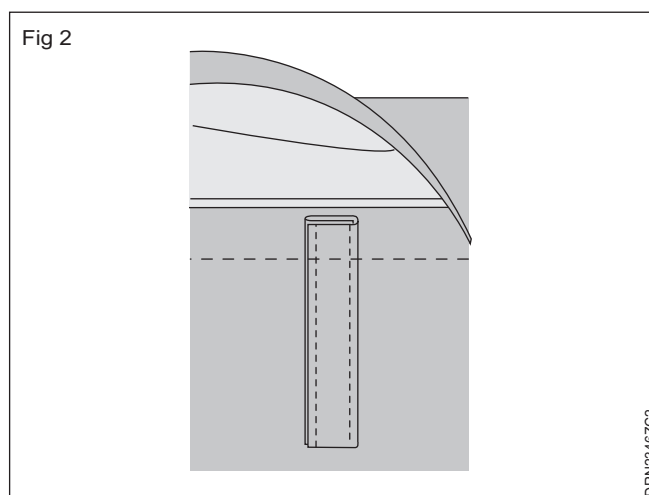
- **prepare and fix belt carriers at waist band.**

- 1 Take the strips for belt carriers. Turn the raw edge of strips 1.5 cm inwards and again turn its edge by 1.5 cm. (note: edge strip should not be visible from outside)
- 2 Baste and stitch along both the long edges keeping its edge on underside
- 3 Start stitching take care that its edge is caught by stitches (Fig 1)



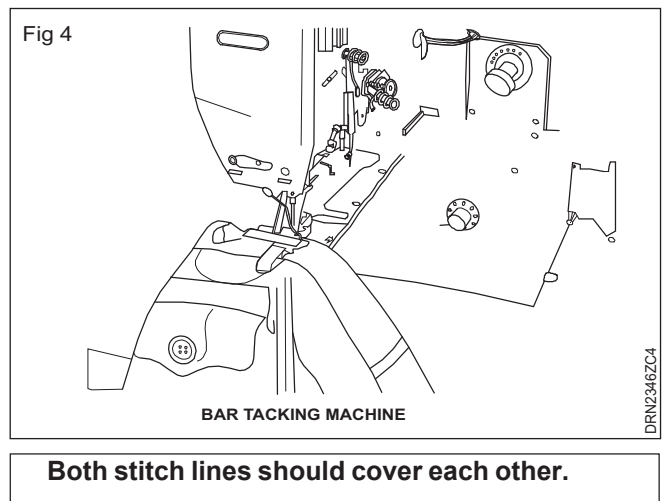
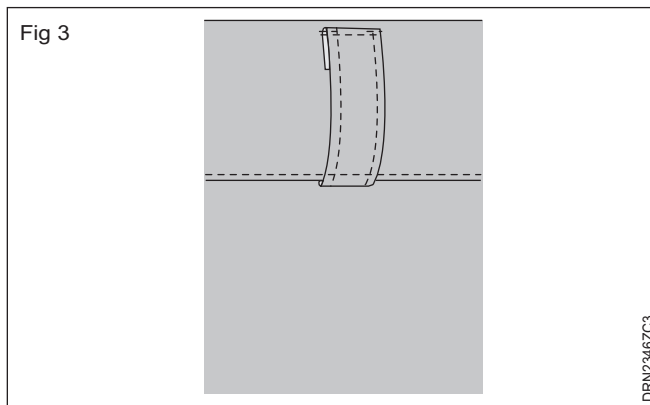
Short edge of carrier is in line with lower edge of waist band. (Fig 2)

- 4 Stitch the belt carrier with machine leaving 0.5 cm seam allowance inside. Extend stitch line for 1 stitch beside belt carrier.



- 5 Fold under the upper edge for 0.5 cm, baste edge 0.2 cm below the upper waistband edge. Top stitch twice. (Fig 3)
- 6 Lift presser foot and turn belt carrier up to the upper side of waist band and lower presser foot. Stitch back on same place but top stitch now over the belt carrier. With the help of bar tacking machine, belt carrier can be stitched easily since the material might be thick. Stitching in treadle machine is slightly difficult due to

thick material. Bar tacking machine is mostly used in industries for mass production to give good finish. (Fig4)



Gents Trouser - Style II

Objectives: At the end of this exercise you shall be able to

- draft and stitch jeans
- prepare front hip pocket
- finish waist line with waist band in front and fold-down casing in back.

Mesurements

Full length = 75 cm
Waist = 66 cm
Hip = 72 cm
Round bottom = 32 cm

Material

0.90 x 1.36 m Drill/Denim cloth
0.25 x 0.45 m Lining
0.80 x 0.75 cm Elastic
1 zip, 18 cm
1 button

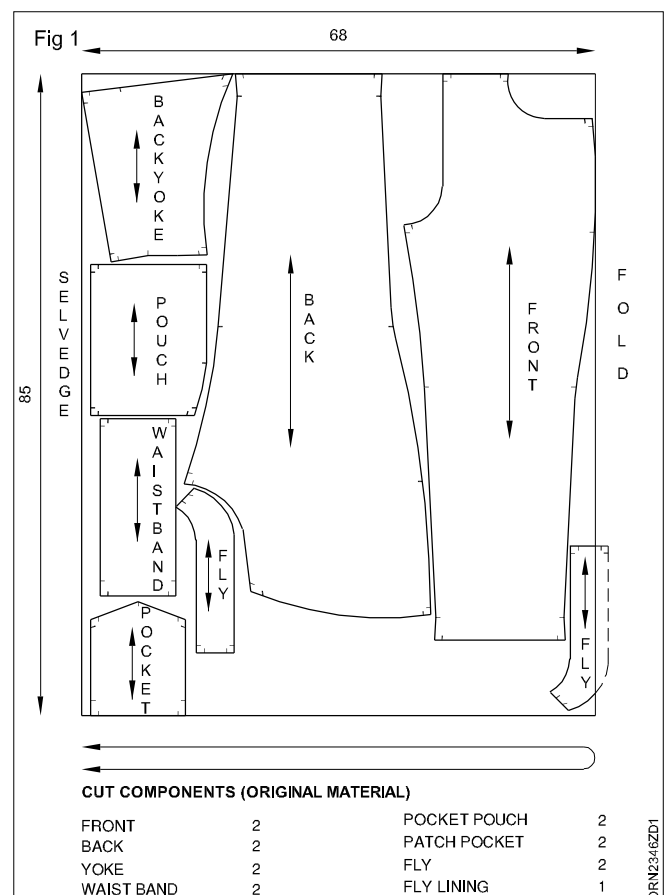
INSTRUCTIONS FOR DRAFTING MASTER PATTERN

- Front and back** : 1 cm all around, except 1.5 cm seat seam and 3 cm for bottom turning
- Yoke** : 1 cm all around, except 1.5 cm on seat seam
- Waist band** : 1 cm all around
- Fly** : 1 cm all around
- Pockets (patch pouch lining and original)** : 1 cm all around, except 2 cm for patch pocket mouth

- Prepare pattern as per instructions (front and back separately).
- Prepare master pattern. (Fig 1)
- Join back yoke to back panel.
- Lay out paper pattern on cloth, mark and cut all components. (Fig 1)

Note: The fly piece extending the fold line in layout is cut from single layer of cloth on unfolded material after all other components have been cut.

- Transfer marks on both layers of front and back part.
- Mark and cut pocket pouch lining pieces from Poplin as per instruction for drafting.



- Prepare front hip pocket. (SS.No.1)
- Prepare zippered fly using fly shields of original material.
- Join back yoke to back panel.
- Turn the seam allowance of lower edge of yoke on the wrong side of fabric and press. Set the folded edge over the seam allowance of upper edge of back part matching side and centre back line, baste and stitch 2 mm away from folded edge. Make another row of stitches 0.75 cm away from the 1st row. Remove basting.
- Prepare back patch pockets and fix on the marked position.
- Join seat seam leaving 4 cm from crotch/fork end. Make double row of stitches on the right side placing seam allowance on left back part.
- Prepare waist band with fusing material.
- Attach waist band from wrong side and make side seam. Insert elastic in fold-down casing. (SS.No.2)
- Join inside leg of front and back.
- Stitch the left out portion of front and back crotch and make double stitches in continuation of seat seam up to fly end. Tack firmly on fly end and side end of pocket mouth.
- Turn and finish bottom hem: Turn the bottom edge 0.75 cm on the wrong side of fabric. Then turn once again the hem portion on the wrong side of fabric, baste and finish the hem by two rows of stitches, keeping 0.75 cm distance between two rows.
- Make one button hole on waist band and tack button.
- Neaten the thread ends and press the jeans.

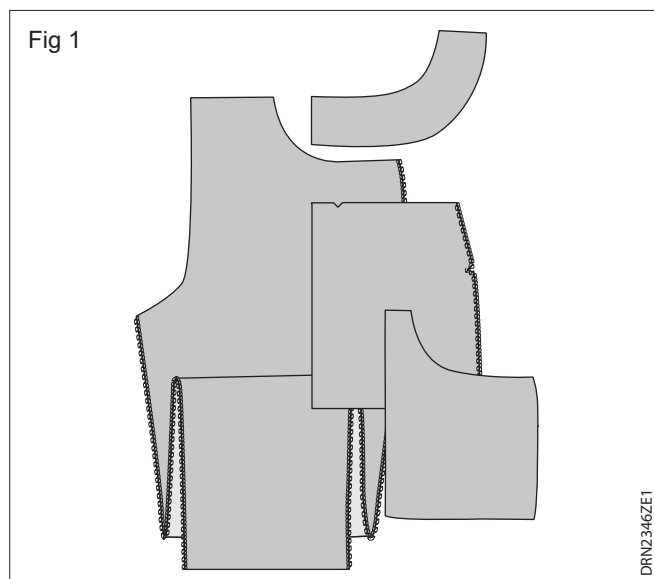
Hip pocket

Objectives: At the end of this exercise you shall be able to

- **prepare front hip pocket on jeans.**

Cut 2 jetting pieces 4 cm wide (including seam allowance from the balance material as per the shape of pocket mouth)

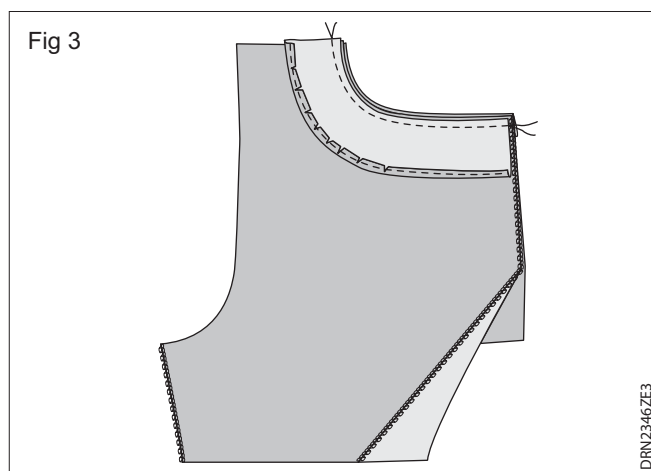
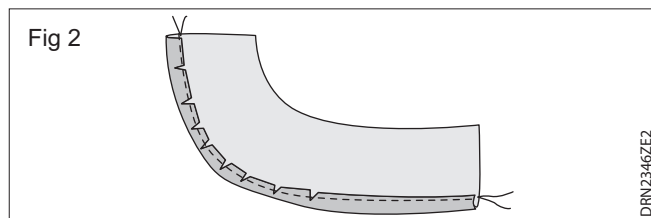
Overlock the defined edges of pieces. (Fig 1)



Take overlocked front part of jeans, both the pocket pouch pieces (one from lining material and other from original material) and one jetting piece.

Mark a line 1 cm away from lower round edge of jetting piece. Cut notches in the curved portion and turn it on wrong side by 1 cm. Baste and press gently and stitch 0.7 cm away from folded edge. (Fig 2)

Place the pocket pouch lining piece on the wrong side of front part along the pocket mouth, right side of lining with wrong side of front together. Then place the jetting piece over front piece matching pocket mouth and right sides. Baste along the pocket mouth and stitch. Remove basting. (Fig 3)



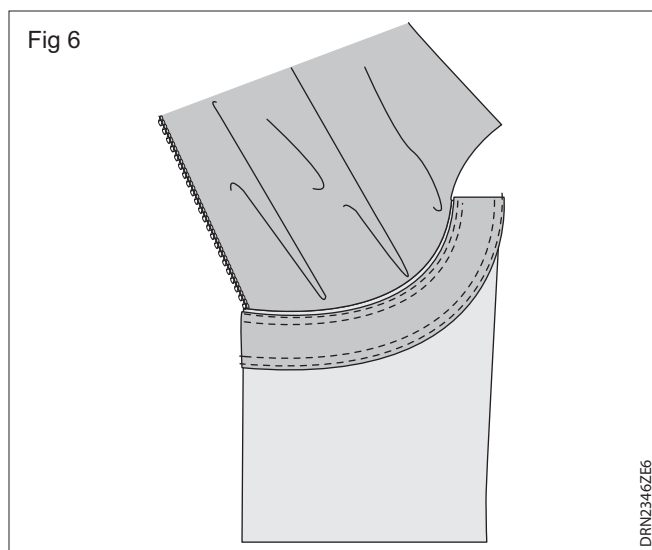
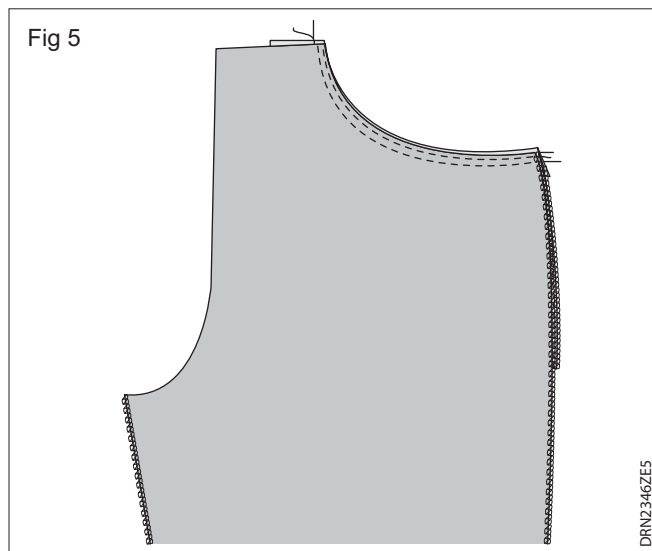
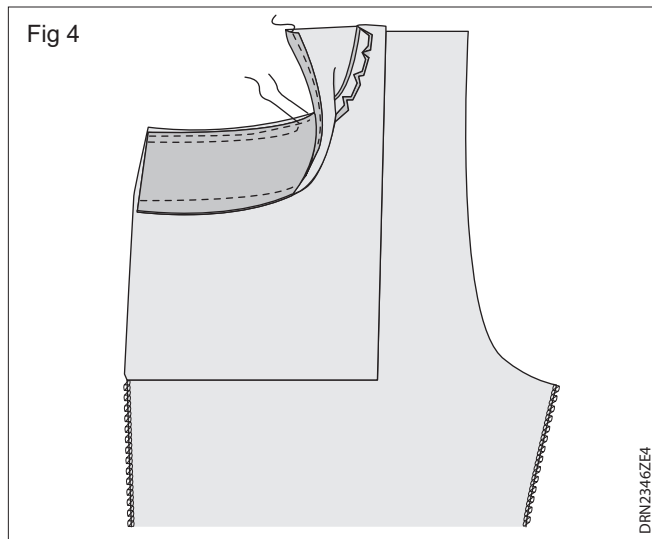
Cut notches on the seam allowance and turn the jetting piece on the wrong side over the pocket pouch piece. Set the seam pushing the edge inside by 2 mm and press. (Fig 4)

Stitch on the pocket mouth from right side, 2 mm away from the edge. Make a parallel seam maintaining distance (gauge) of 0.75 cm. (Fig 5)

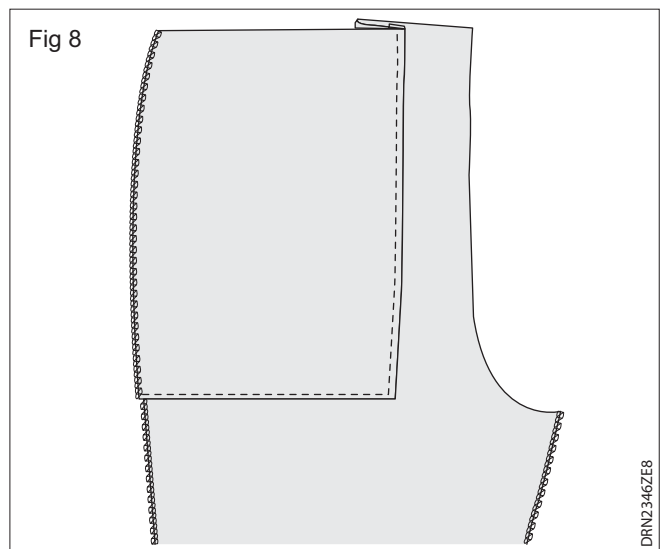
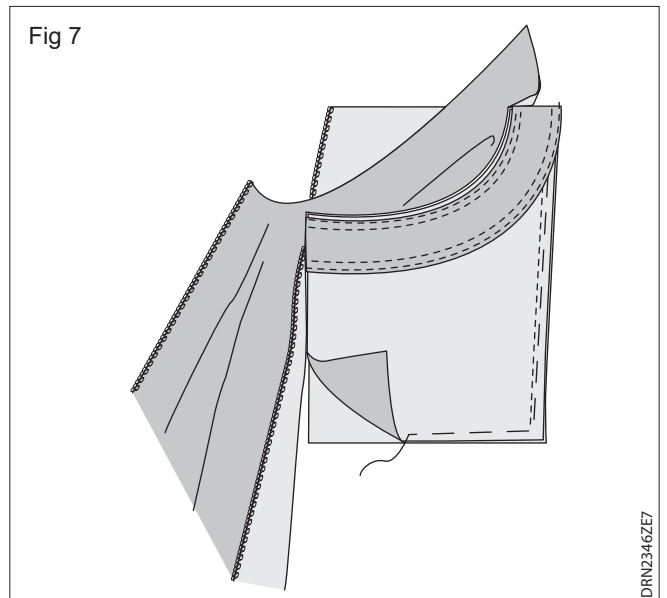
Spread the pocket pouch away from the body part, lay flat the jetting piece over it and stitch the lower edge of jetting with the pocket pouch. (Fig 6)

Take the pocket pouch of original material and place it under the lining pocket pouch, right side of lining material with the wrong side of original material together. Match the

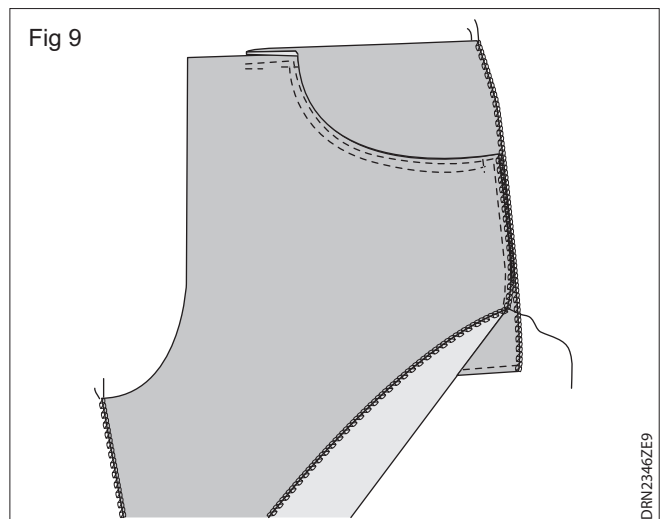
longer sides. Baste on the longer side and bottom of the pieces. Stitch at a distance of 0.75 cm from the edge. (Fig 7)



Remove basting and turn the pocket pouch bringing right side out. Set the seam and press. Stitch along the edge leaving 0.75 cm. (Fig 8)



Lay the front of jeans with right side up and place the pocket pouch under it matching sides and top. Baste and stitch with machine on waist, line and side at a distance of 0.5 cm from the edge. (Fig 9)



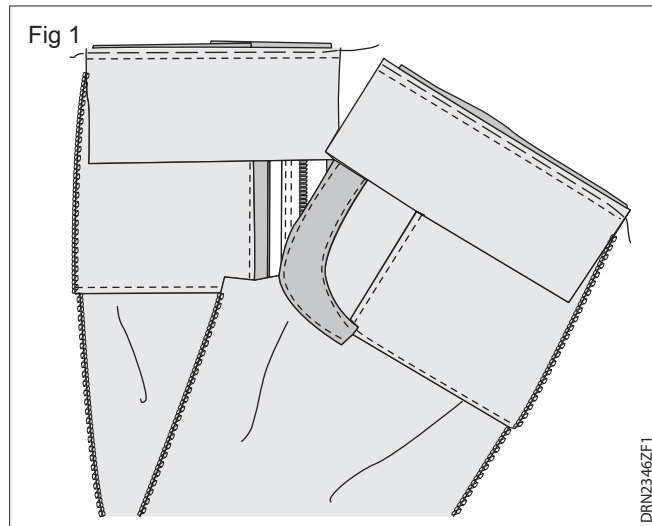
Note: Take care that the pocket mouth opening is kept in right place on marks.

Waist band finish

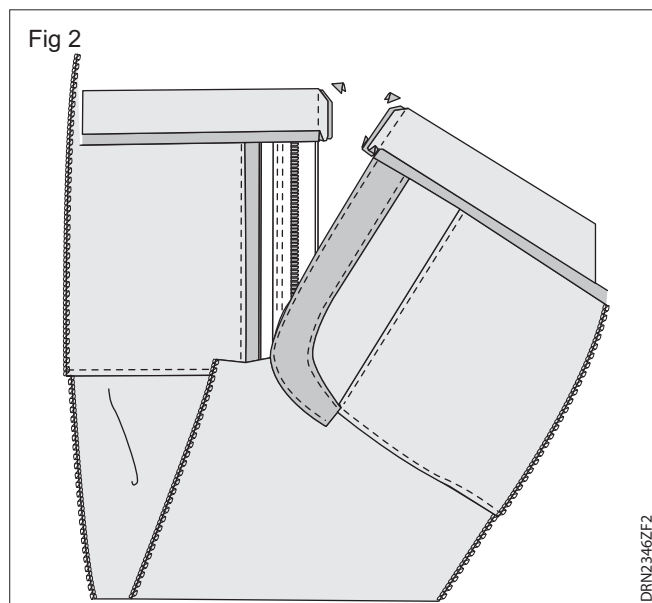
Objectives: At the end of this exercise you shall be able to

- **prepare waist band and stitch side seam of jeans.**

Place the waist band on the waist line of front part right side of waist band and wrong side of front jeans together. Seam allowance of waist band will extend by 1 cm on both sides at centre front. Baste and stitch on the seam allowance mark. Remove basting. (Fig 1)



Fold the waist band on its centre mark, right sides together. Stitch on the seam allowance of centre front. Trim off the corner to reduce bulk. (Fig 2)



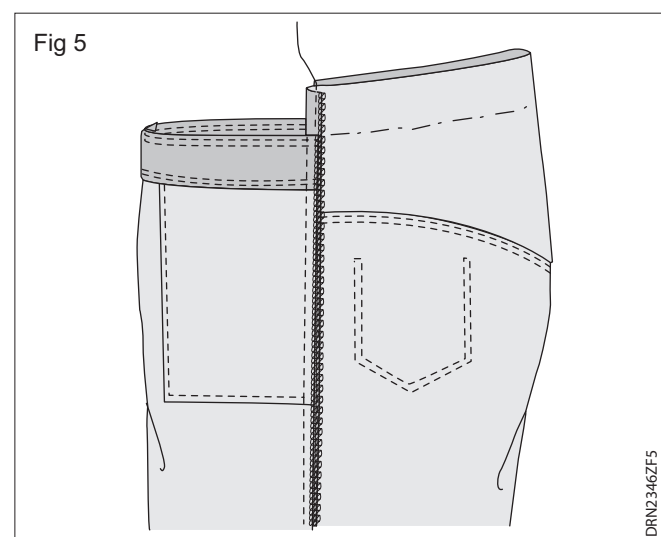
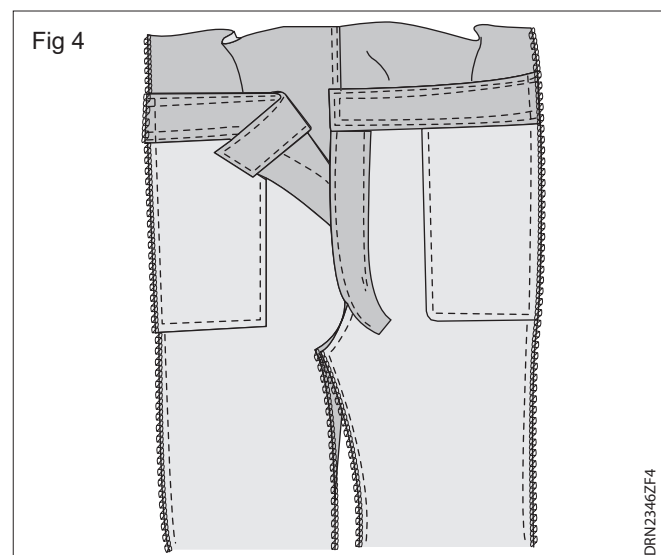
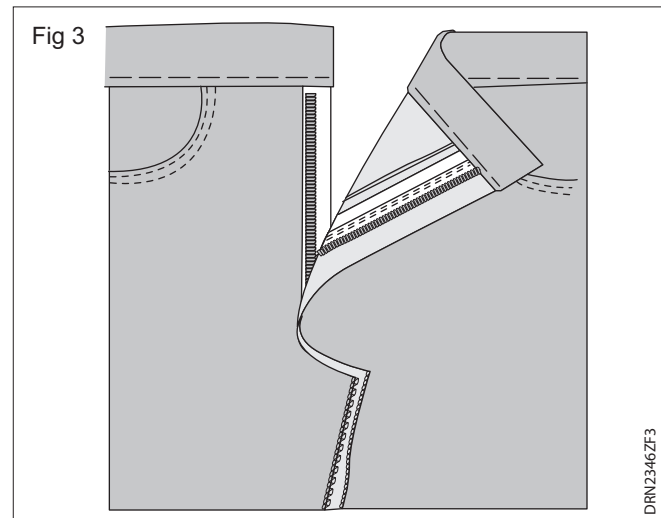
Turn the waist band with right side out and pull out the corner neatly. (Fig 3)

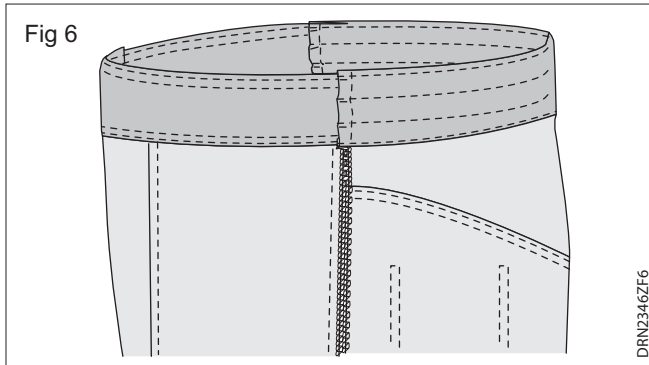
Match and stitch side seams of front and back component right sides together. Stitch also inside leg length and crotch line. Overlock all seam allowances. (Fig 4)

Press side seam allowance towards back component, and stitch it on the edge from top of back up to waist band of front. (Fig 5)

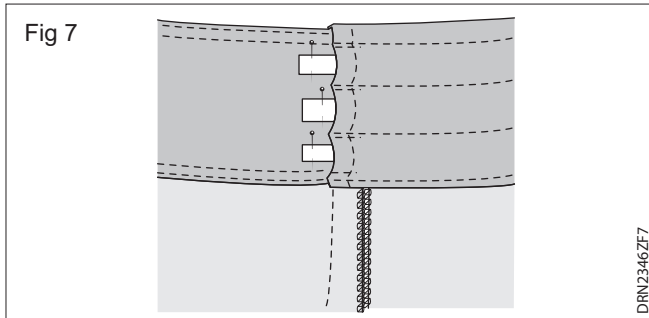
Prepare fold down casing of back. Set three rows of stitches: Keep 0.5 cm from top and divide the remaining

portion into three equal parts for two more rows of stitches. (Fig 6)



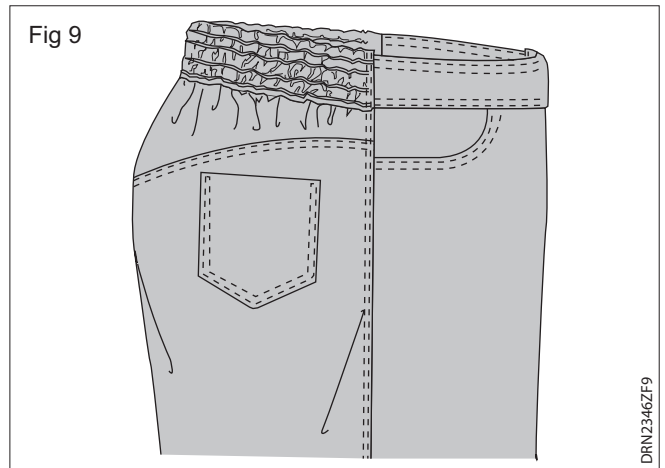
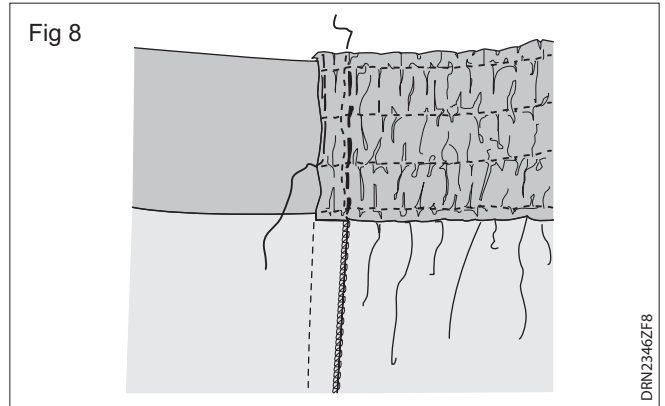


Insert elastic (formula for calculation and fix with pins. (Fig 7)



Fix elastic by basting at a distance of 1 cm. Remove pins and trim edges of elastic. Baste again on the edges. (Fig 8)

Turn the garment with right side out and stitch a parallel row of stitches on side seam. (Fig 9)



Press and fold checking the fitting of gents wear

Objectives: At the end of this exercise you shall be able to

- press and fold a shirt
- press and fold a trousers.

Requirements

Tools / Instruments

- Iron box & Pressing table - 1 No each.
- Dummy (size should be matched with the size of the garments)

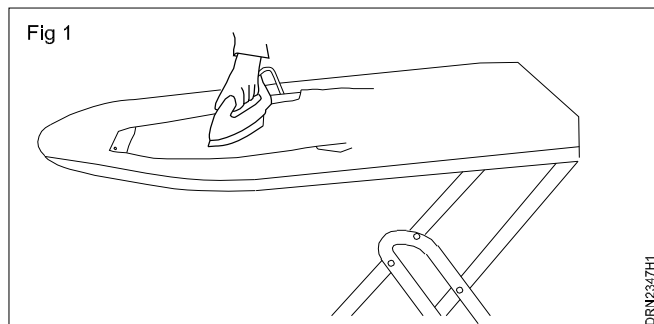
Materials

- Shirt and trousers - 1 No each.
- Sewn sari blouse and petticoat - 1 No each.

PROCEDURE

TASK 1 : Press and fold a shirt

- 1 Place the shirt on the pressing table.
- 2 Set the iron box with required heat.
- 3 Press the collar and shoulder portion.
- 4 Press the sleeve plackets, cuff.
- 5 Place the sleeves of the shirt in flat and press neatly. (Fig 1).



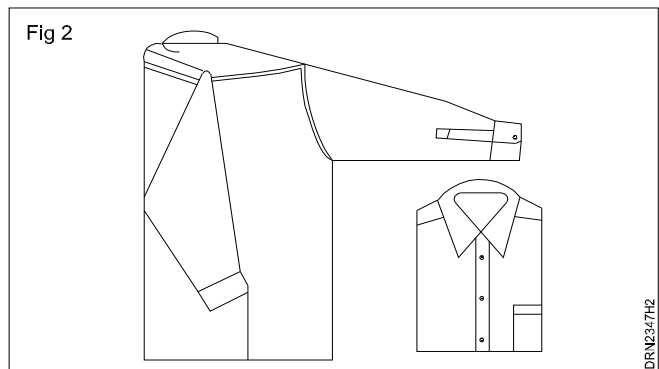
- 6 Press the back portions.
- 7 Press the front portion, pocket and plackets. Fasten all the buttons.
- 8 After pressing, Place the shirt on the table as the front portion is down and back portion is up.
- 9 Fold the shirt lengthwise on the middle portion of the CB line and Left side seam as shown in the Fig 2.
- 10 Keep the left sleeve inside the fold portion as shown in the above figure.
- 11 Then do the same for the right sleeve also.
- 12 Finally the fold the shirt at the widthwise through the half length middle line as shown in the figure.

Folding of some basic garments

Folding of a basic shirt

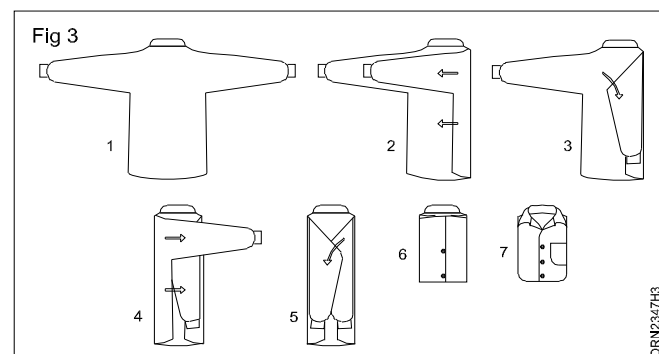
- 1 **Stand up:** Collar is folded with body and situated at 90 degree angle. (Fig 2)

Fig 2



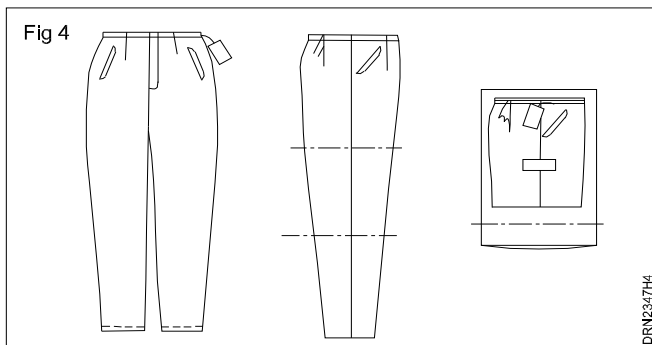
- 2 **Semi-stand up:** Collar is folded with body and situated at 45 degree angle.
- 3 **Flat pack:** Collar is spread as a whole on the body of shirt.
- 4 **Hanger pack:** Shirt is packed and transported by hanging on the hanger. At the end of folding, garment are placed into a polythene packet, the size of polythene packet is permanent.

Fig 3



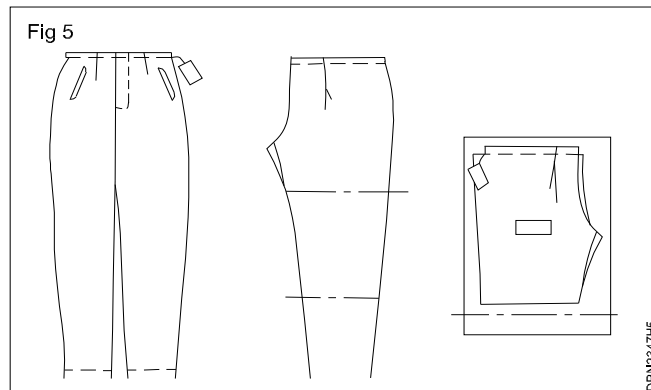
Pant folded side-to-side

- 1 Close zipper and waist buttons.
- 2 Fold pant in half, with inseam to out seam keeping ends of waistband to inside of pant.
- 3 Fold leg in thirds - fold bottom edge to above knee and fold up to waist edge.(Fig 4)



Pant folded front-to-back

- 1 Close zipper and waist buttons.
- 2 Fold pant front to back with fold at rise.

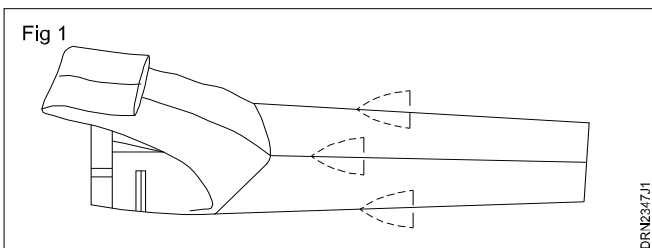


- 3 Fold leg in thirds - bottom edge to above knee and fold up to waist edge.

Processes	Procedure
Finishing Input	Here, sewn garments are received for finishing the garments.
Initial quality check	Sewn garments are checked here by the quality controller. If found major sewing problems then garments sent again to the sewing section for rectification
Spot removing	Sometimes garments contain various types of spots which removes here carefully.
Ironing or pressing	It's one of the important processes in garment finishing. Here garments are ironed by following the measurement chart of those garments
Inspection	After completing ironing or finishing, garments are inspected again here by the quality controller to confirm the correct measurement of the apparel.
Hangtag attaching	In this section, the hangtag has to attach to the garments.
Folding	After completing all the above processes, garments are folded here.
Poly	Garments are poly-bagged here to keep the garments dust, dirt and other impurities free. send the garments safely to the buyer
Metal check	In this section, garments should be passed through a metal detector machine to identify metal lies in the garments.
Packaging or cartooning	Finally, all the garments should pack to send the garments safely to the buyer.
Inspection & Shipment	It's time to check the final inspection and then go for the dispatch shipment.

TASK 2 : Press and fold a trousers

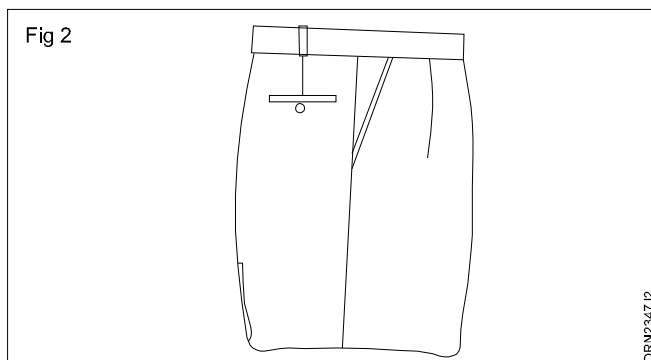
- 1 Set the trousers by holding it on its waist band and let the pocket pouch and legs hang straight and press it neatly. (Fig 1)



- 2 Hold the legs and match the inside seam and side seam of each leg and press.
- 3 Bring both legs together and press.

- 4 Set the placket opening flat in its place and press.
- 5 Make three folds on the length. (Fig 2)

Get the work checked by your Instructor.



Pattern grading of gents shirt

Objectives: At the end of this exercise you shall be able to

- grade a simple bodice front pattern
- grade the shirt patterns.

Requirements

Tools / Instruments

- 'L' square - 1 No.
- 1 Feet scale - 1 No.
- Metre scale - 1 No.
- Set square - 1 No.
- Measuring tape - 1 No.
- Pattern cutting scissors - 1 No.
- HB pencil - 1 No.
- Pencil eraser - 1 No.

- Blue ink pen - 1 No.
- Green ink pen - 1 No.
- Red ink pen - 1 No.

Materials

- Brown paper (90 GSM) - 8 Nos.
- Spec. sheet or Measurement chart for bodice pattern
- Shirt pattern set (M size) with spec. sheet

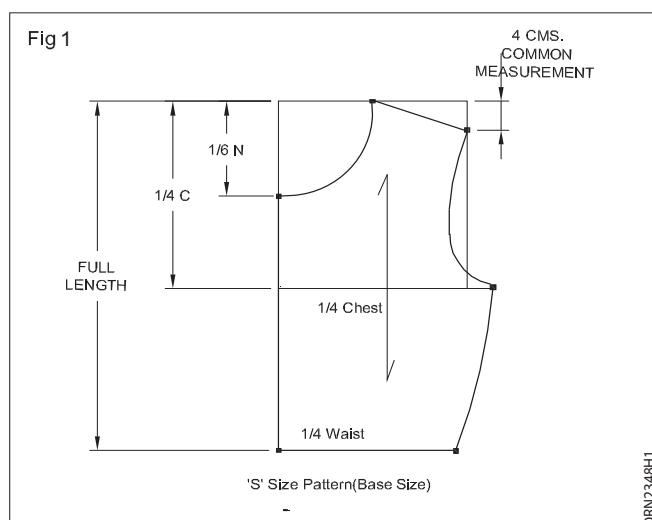
PROCEDURE

TASK 1 : Grade a simple bodice front pattern

1 Analyze the Spec. Sheet or measurement chart.

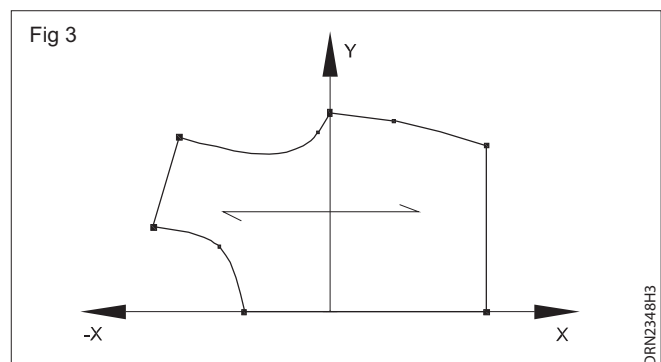
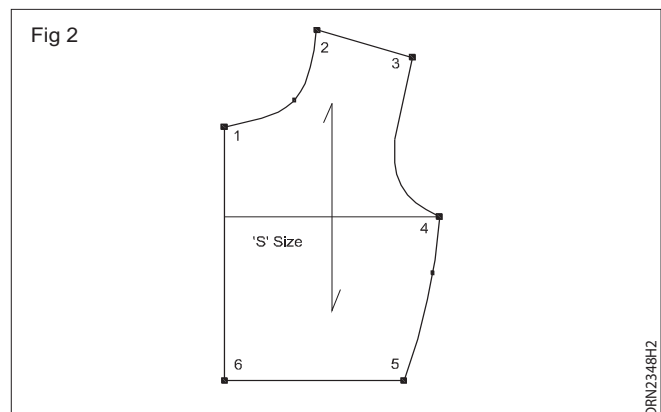
Sl.No	Measurements	S	M	L	XL
1	Length	42	44	46	48
2	Chart	100	104	108	112
3	Waist	80	84	88	92
4	Shoulder	38	40	42	44
5	Neck	36	39	42	45

2 With help of the Tools / Instruments and materials, prepare pattern for 'S' Size (or Base Size) as shown in the following figure. (Fig 1)



3 Give notations to the pattern points to be graded. (Fig 2)

4 Draw pattern axes on the cut pattern using red ink pen and scale. (Fig 3)

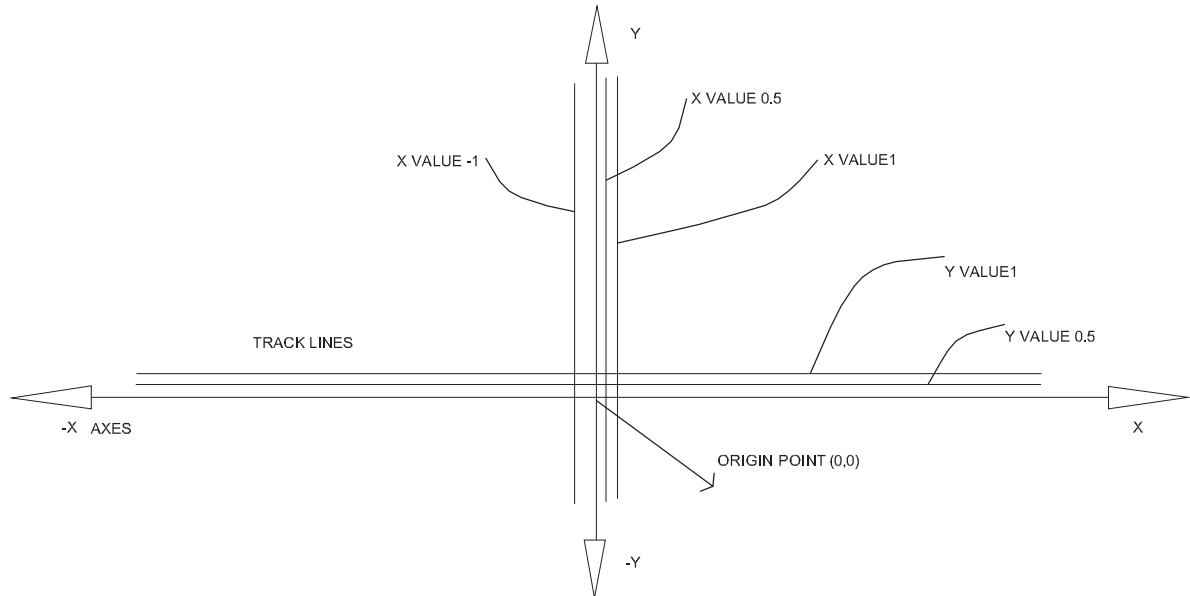


5 Calculate increments and prepare increment table.

Point	S to M		M to L		L to XL	
	X	Y	X	Y	X	Y
1	0.5	0	0.5	0	0.5	0
2	-1	0.5	-1	0.5	-1	0.5
3	-1	1	-1	1	-1	1
4	0	1	0	1	0	1
5	1	1	1	1	1	1
6	1	0	1	0	1	0

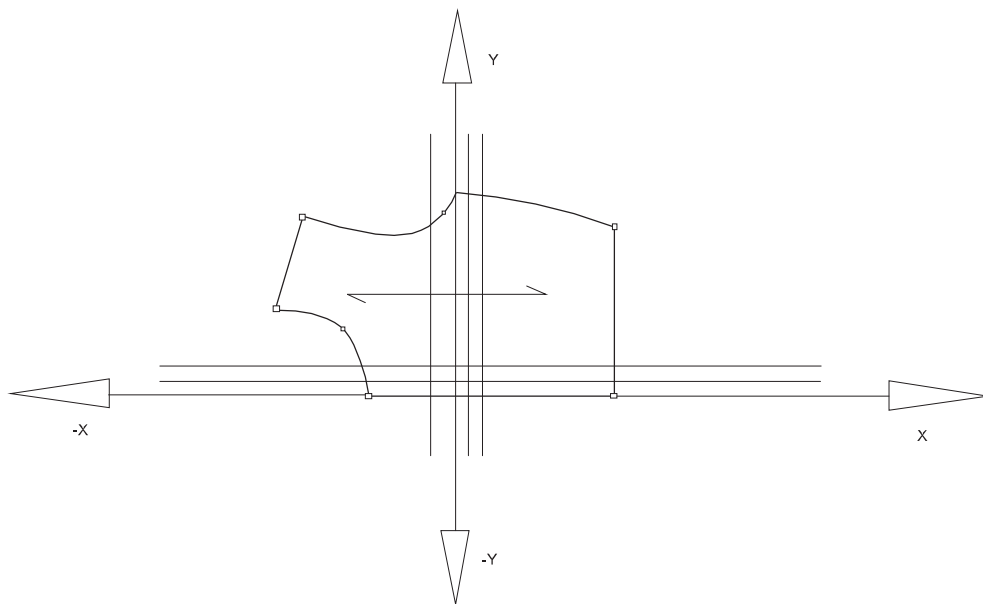
- 6 Take a brown paper in which the pattern to be graded and draw the axes, and mark the track lines based on the increment. Use different colour pens for track nearby for easy identification. (Fig 4)
- 7 Place the 'S' Size pattern on the paper by matching the origin points. (Fig 5)
- 8 Move the pattern on the increments line for both the x and y direction for point 1 and mark the end of the neckline and start of the CF line.
- 9 Return back the pattern to origin point on the paper.
- 10 Move the pattern on the increments line for both the x and y direction for point 2 and mark the start of the neckline and start of the Shoulder line.

Fig 4



DRN2348H4

Fig 5



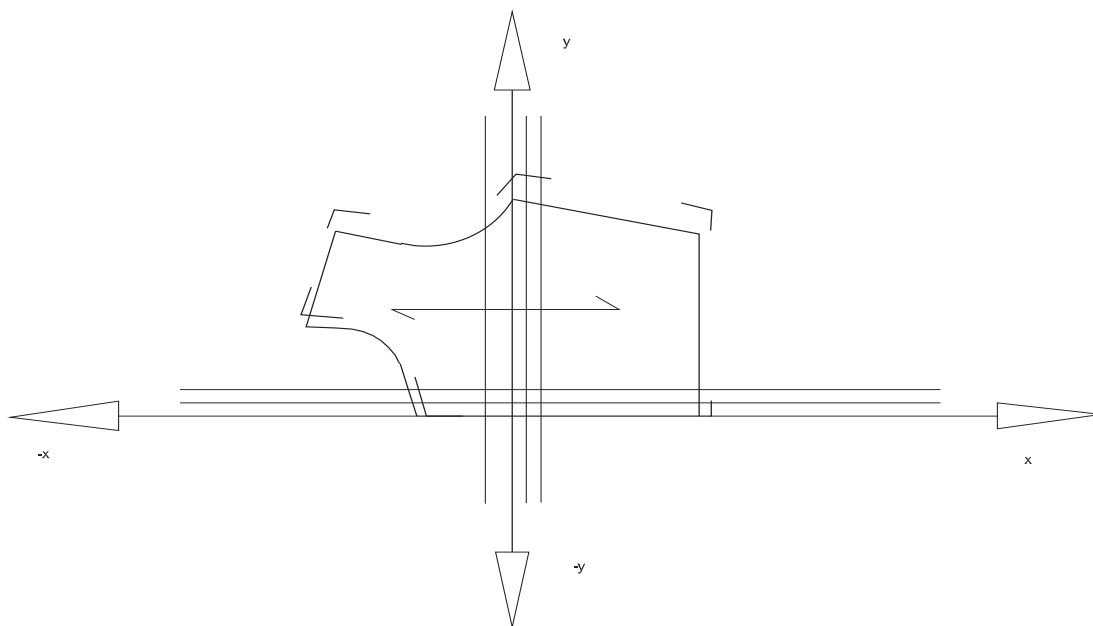
DRN2348H5

- 11 Return back the pattern to origin point on the paper.
- 12 Move the pattern on the increments line for both the x and y direction for point 3 and mark the end of the shoulder line and start of the armhole.
- 13 Return back the pattern to origin point on the paper.
- 14 Move the pattern on the increments line for both the x and y direction for point 4 and mark the end of the Armhole and start of the side seam line.
- 15 Return back the pattern to origin point on the paper.
- 16 Move the pattern on the increments line for both the x and y direction for point 5 and mark the end of the side seam line and end of the Waist line.
- 17 Return back the pattern to origin point on the paper.
- 18 Move the pattern on the increments line for both the x and y direction for point 6 and mark the start of the Waist line and end of the CF line. (Fig 6)

19 Remove the pattern from the paper, and join the graded portions with the help of scale (for straight lines) and base 'S' pattern (for curves). (Fig 7)

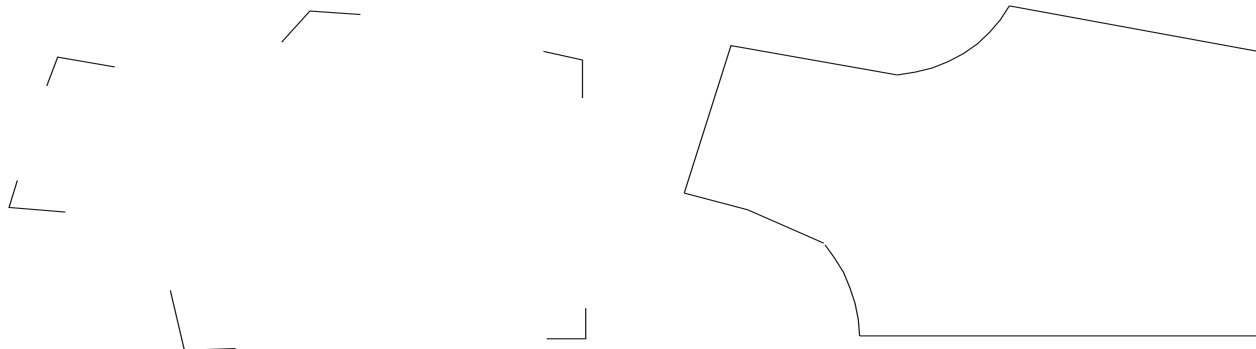
20 Do the same procedure for the remaining sizes for getting graded patterns for all the sizes as shown in the figure. (Fig 8)

Fig 6



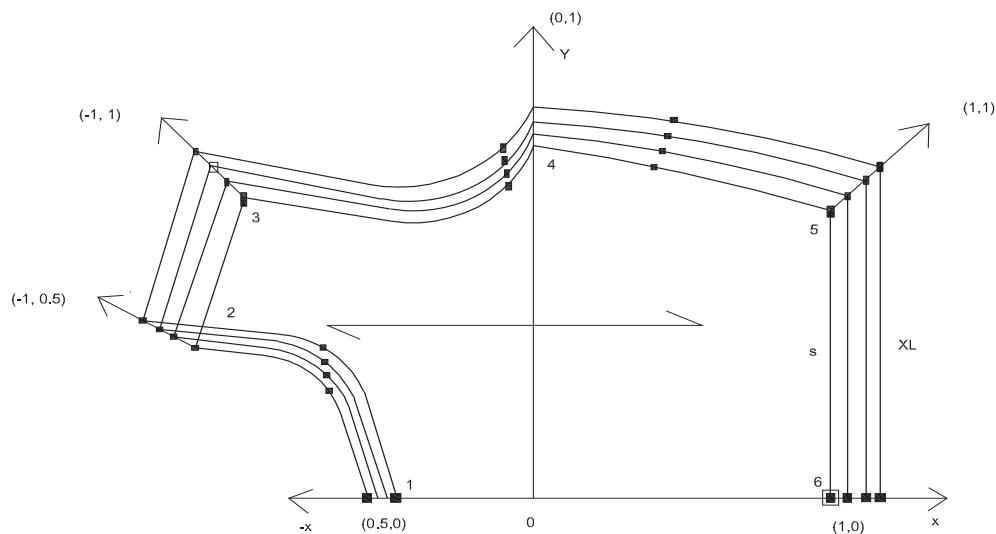
DRN2348H6

Fig 7



DRN2348H7

Fig 8



DRN2348H8

TASK 2 : Grade the shirt patterns

1 Analyze the spec.sheet or measurement chart.

Sl. No.	Measurements in Cms	S	M	L	XL
1	Neck	38	40	42	44
2	Chest	95	100	105	110
3	Armscye depth	23.75	25	26.25	27.5
4	Natural waist length	44	45	46	47
5	Half back	19	20	21	22
6	Full sleeve length	64	65	66	67
7	Shirt length	79	81	83	85
8	Cuff length	22	23	24	25
9	Cuff width	6	6	6	6
10	Pocket length	14.5	15.5	16.5	17.5
11	Pocket width	11	12	13	14
12	Pocket hem	3.5	3.5	3.5	3.5

2 Take the 'M' Size shirt patterns to be graded.

3 Give notations to the pattern points to be graded.

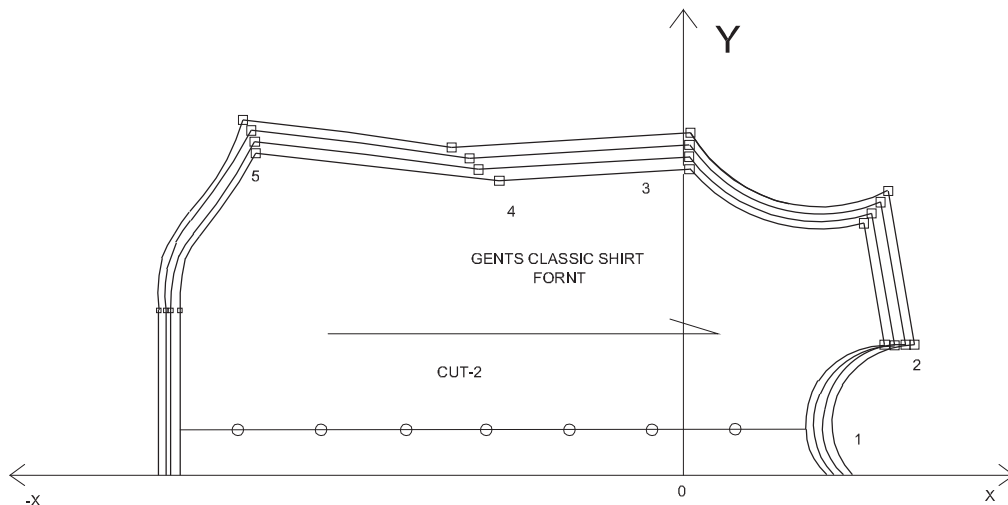
4 Draw pattern Axes on the cut pattern using red ink pen and scale.

5 Calculate increments and prepare increment table.

6 Grade the patterns by the method followed in TASK 1. (Fig 1 to Fig 7)

Get the work checked by your instructor.

Fig 1

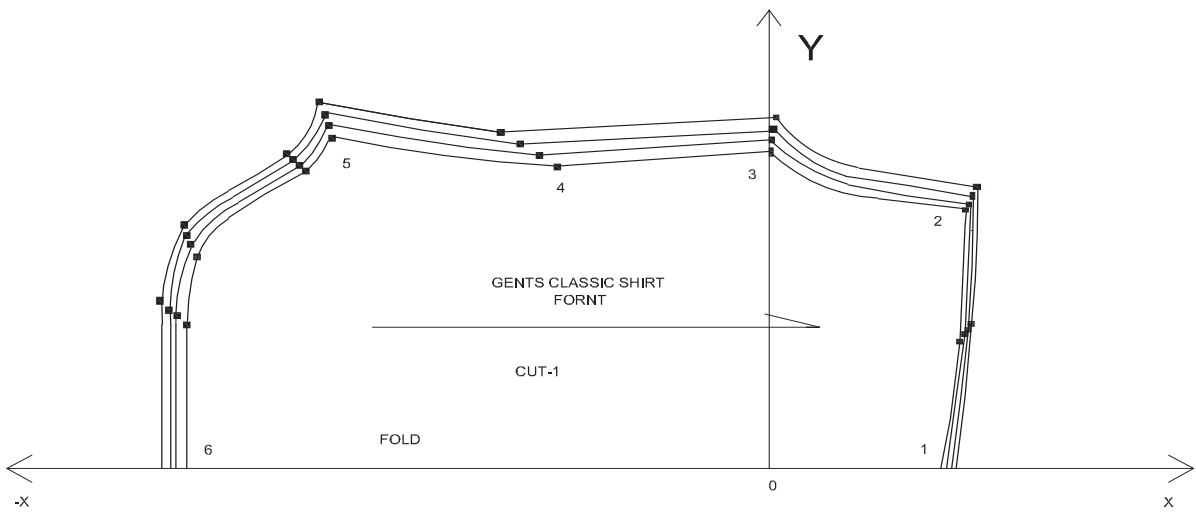


DRN2348/J1

Front grading

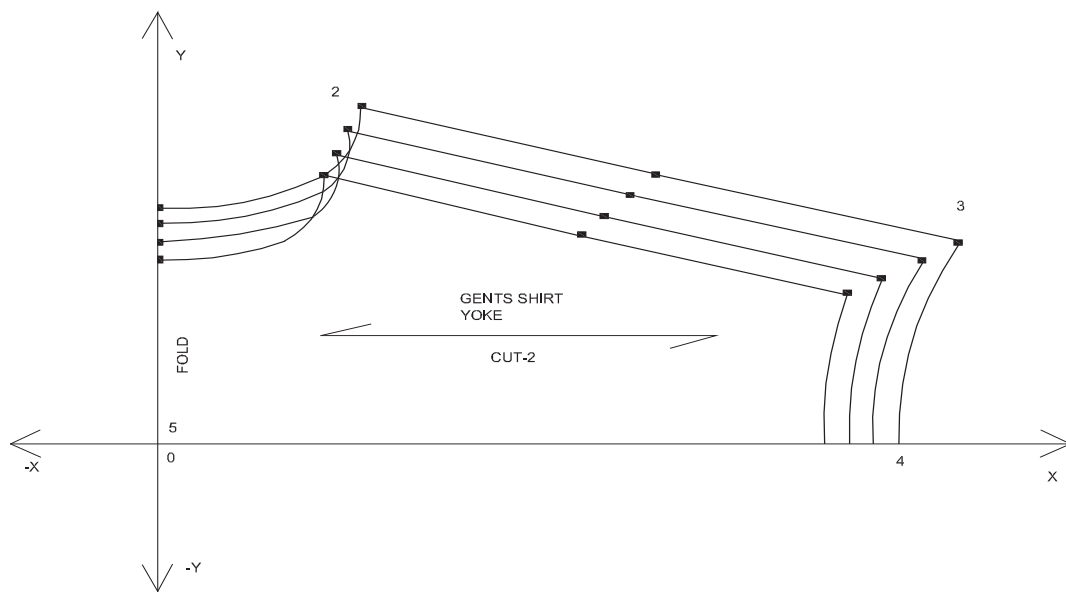
Sizes ----->	M to S		M to L		L to XL	
Point	X	Y	X	Y	X	Y
1	-0.85	0	+0.85	0	+0.85	0
2	-1.25	-0.4	+1.25	-0.4	-1.25	-0.4
3	-1.85	-1	+1.25	+1	+1.25	+1
4	0	-1.25	0	+1.25	0	+1.25
5	+1	-1.25	-1	+1.25	-1	+1.25
6	+0.75	-1.25	-0.75	+1.25	-0.75	+1.25
7	+0.75	0	-0.75	0	-0.75	0

Fig 2



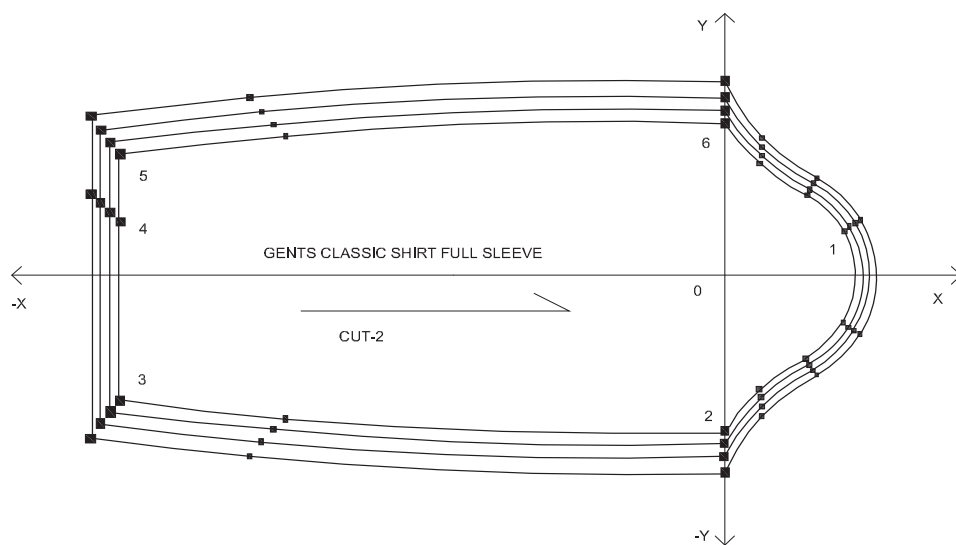
DRN2348J2

Fig 3



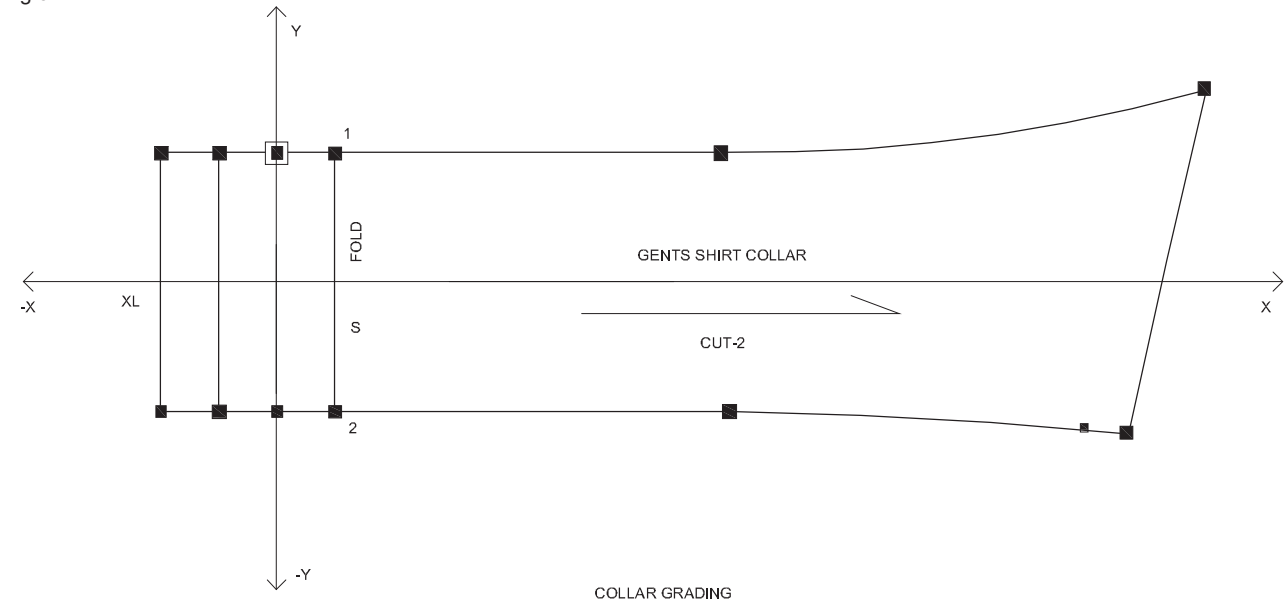
DRN2348J3

Fig 4



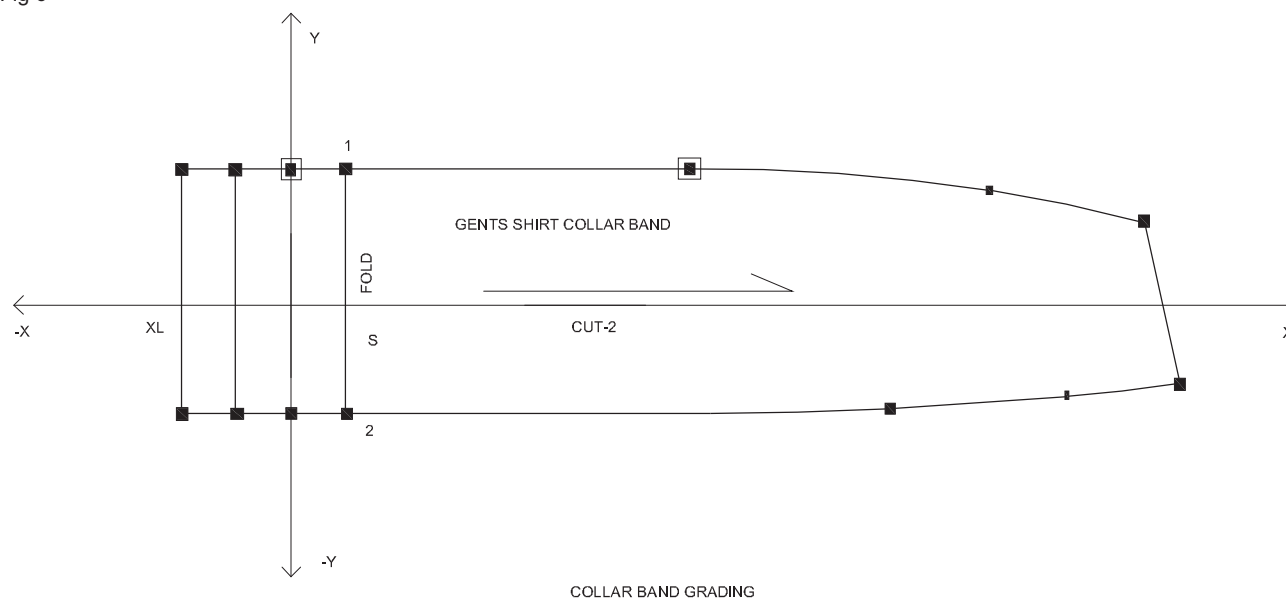
DRN2348J4

Fig 5



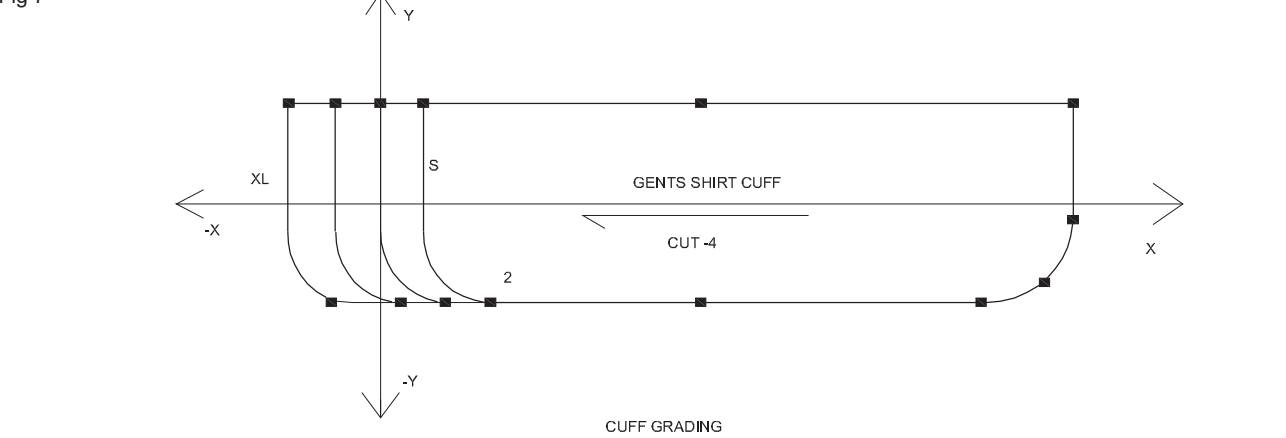
DRN2348/5

Fig 6



DRN2348/6

Fig 7



DRN2348/7

Back grading

Sizes -----> Point	M to S		M to L		L to XL	
	X	Y	X	Y	X	Y
1	-0.25	0	+0.25	0	+0.25	0
2	-0.25	-1	+0.25	+1	+0.25	+1
3	0	-1.25	0	+1.25	0	+1.25
4	+1	-1.25	-1	+1.25	-1	+1.25
5	+0.75	-1.25	-0.75	+1.25	-0.75	+1.25
6	+0.75	0	-0.75	0	-0.75	0

Increment table for Back**Yoke Grading**

Sizes -----> Point	M to S		M to L		L to XL	
	X	Y	X	Y	X	Y
1	0	0	0	+1	0	+1
2	-0.4	-1	+0.4	+1	+0.4	+1
3	-1	-1	+1	+1	+1	+1
4	-1	0	+1	0	+1	0
5	0	0	0	0	0	0

Sleeve Grading

Sizes -----> Point	M to S		M to L		L to XL	
	X	Y	X	Y	X	Y
1	-0.30	0	+0.30	0	+0.30	0
2	0	+1.25	0	-1.25	0	-1.25
3	+0.95	+0.85	-0.95	-0.84	-0.95	-0.84
4	+0.95	-0.42	-0.95	+0.42	-0.95	+0.42
5	+0.95	-0.84	-0.95	+0.84	-0.95	+0.84
6	0	-1.25	0	+1.25	0	+1.25

Collar, Collar band & Cuff grading

Sizes -----> Point	M to S		M to L		L to XL	
	X	Y	X	Y	X	Y
1	+1	0	-1	0	-1	0
2	+1	0	-1	0	-1	0

Get the work checked by your instructor.

Dress Making - Garment Making and Production Technique

Pattern grading of gents trousers

Objective: At the end of this exercise you shall be able to

- grade the trousers pattern.

Requirements

Tools / Instruments

- 'L' square - 1 No.
- 1 Feet scale - 1 No.
- Metre scale - 1 No.
- Set square - 1 No.
- Measuring tape - 1 No.
- Pattern cutting scissors - 1 No.
- HB pencil - 1 No.
- Pencil eraser - 1 No.

- Blue ink pen - 1 No.
- Green ink pen - 1 No.
- Red ink pen - 1 No.

Materials

- Brown paper (90 GSM) - 8 Nos.
- Trousers pattern set (M - Size) with spec. sheet.

PROCEDURE

TASK 1 : Grade the trousers pattern

- 1 Analyze the spec.sheet or measurement chart.

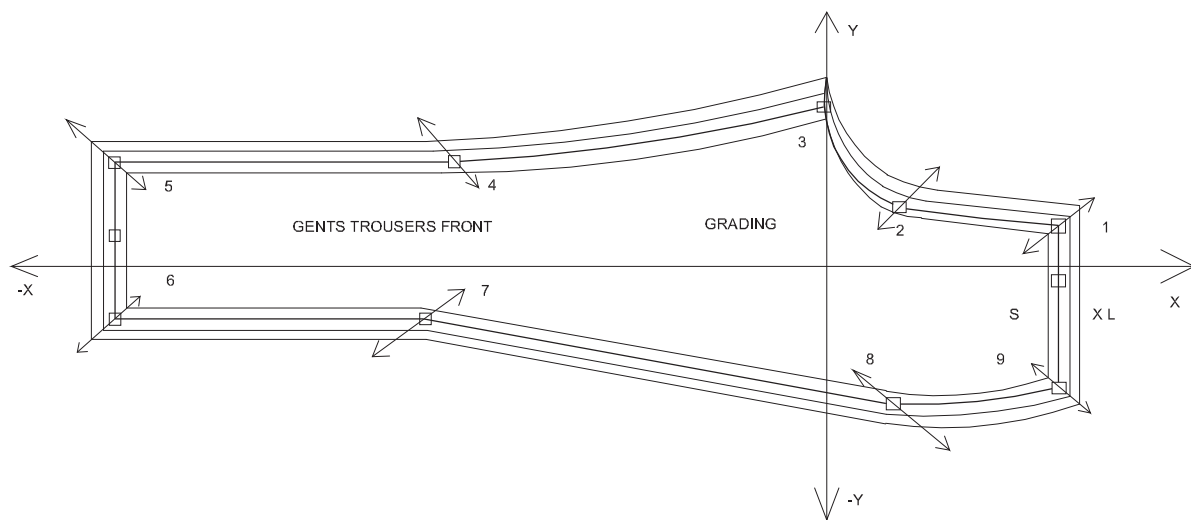
Sl. No.	Measurements in Cms	S	M	L	XL
1	Hip	98	102	106	110
2	Waist	82	86	90	94
3	Body rise	27.6	28	28.4	28.8
4	Inside leg length	80	81	82	83
5	Trouser bottom width	24.5	25	25.5	26
6	Waist band width	4	4	4	4

- 2 Take the 'M' Size Trousers patterns to be graded.
- 3 Give notations to the pattern points to be graded.
- 4 Draw pattern Axes on the cut pattern using red ink pen and scale.
- 5 Calculate increments and prepare increment table.
- 6 Grade the patterns. (Follow the method in TASK 1 of Ex.No. 2.1.16) (Fig 1 to Fig 3)

Front grading

Sizes ----->	M to S		M to L		L to XL	
Point	X	Y	X	Y	X	Y
1	-0.4	-0.35	+0.4	+0.35	+0.4	+0.35
2	-0.1	-0.35	+0.35	+0.35	+0.1	+0.35
3	0	-0.6	0	+0.6	0	+0.6
4	+0.5	-0.25	-0.5	+0.25	-0.5	+0.25
5	+1	-0.25	-1	+0.25	-1	+0.25
6	+1	+0.25	-1	-0.25	-1	+0.25
7	+0.5	+0.25	-0.5	-0.25	-0.5	-0.25
8	-0.1	+0.65	+0.1	+0.65	+0.1	-0.65
9	-0.4	+0.65	+0.4	-0.65	+0.4	-0.65

Fig 1



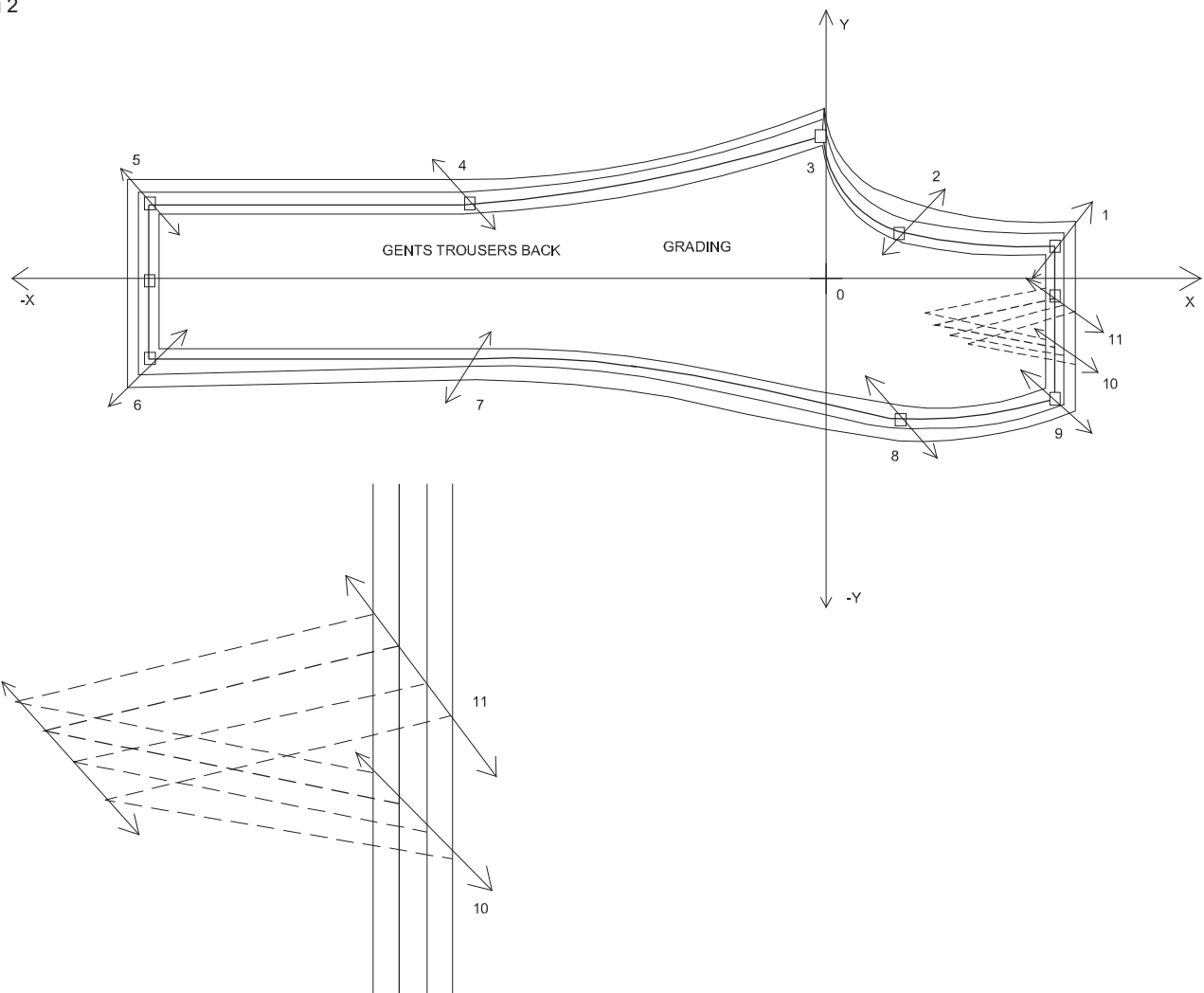
DRN2349H1

Back grading

Sizes ----->	M to S		M to L		L to XL	
Point	X	Y	X	Y	X	Y
1	-0.4	-0.3	+0.4	+0.3	+0.4	+0.3
2	-0.1	-0.3	+0.1	+0.3	+0.1	+0.3
3	0	-0.7	0	+0.7	0	+0.7
4	+0.5	-0.25	-0.5	+0.25	-0.5	+0.25
5	+1	-0.25	-1	+0.25	-1	+0.25
6	+1	+0.25	-1	-0.25	-1	-0.25
7	+0.5	+0.25	-0.5	-0.25	-0.5	-0.25
8	-0.1	+0.7	+0.1	-0.7	+0.1	-0.7
9	-0.4	+0.7	+0.4	-0.7	+0.4	-0.7
10	-0.4	+0.25	+0.4	-0.25	+0.4	-0.25
11	-0.4	+0.25	+0.4	-0.25	+0.4	-0.25

Increment table for back

Fig 2



DRN2349H2

Waist band grading

Sizes ----->	M to S		M to L		L to XL	
Point	X	Y	X	Y	X	Y
1	-2	0	2	0	2	0
2	-2	0	2	0	2	0

Fig 3



DRN2349H3

Get the work checked by your instructor.

Practice of developing designs with coral draw tools

Objectives: At the end of this exercise you shall be able to

- identify the shape tools
- work with the shapes
- identify the special effect tools
- create envelopes
- use colour tools
- use interactive tools
- create fabric design used coraldraw.

Requirements	
Tools / Instruments • Computer system with coral draw • Coreldraw software • Printed • A4 sheet paper • Pencils - 4 Nos. • Charcoal Pencil - 1 No. • Ruler - 1 No. • Eraser - 1 No. • Sharpener - 1 No. • Brushes (0,1,3,6,8,10) - 1 each.	Materials • Color pencil (24 colors) - 1 set. • Crayons - 1 set • Poster paints - 1 No. • Water - as reqd. • Pallet - 1 No. • Paper - as reqd. • Chart - as reqd. • Magazines - as reqd. • Gum paste - as reqd. • Water tube - 1 No. • Wast cloth - as reqd.

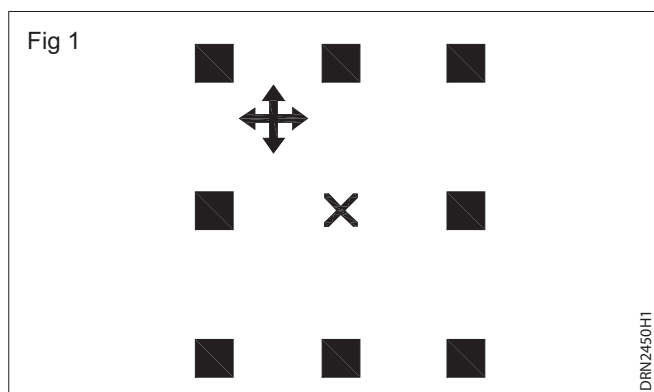
PROCEDURE

TASK 1: Identify Pick tool

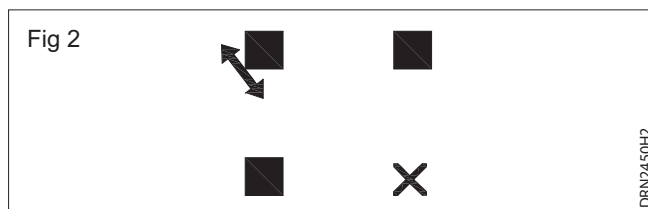
Select, position, or transform objects.

Moving, scaling and stretching objects

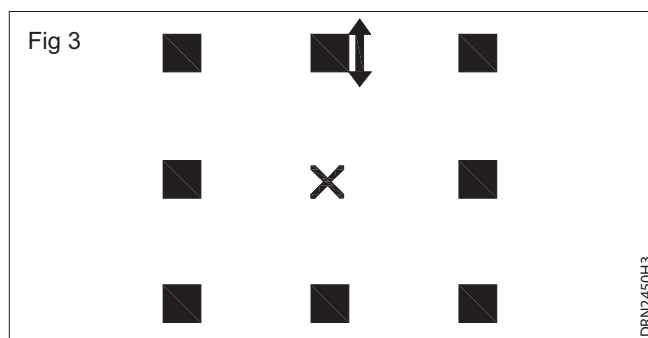
- 1 To move an object, drag it. To constrain the movement to the horizontal or vertical axis, hold down **ctrl** while dragging. (Fig 1)



- 2 To nudge the object, press the **Arrow keys**.
- 3 To scale the object, drag one of the corner sizing handles, holding down **shift** if you want to scale from the centre. (Fig 2)
- 4 To stretch the object, drag one of the stretching handles, holding down **Shift** if you want to stretch from the centre.

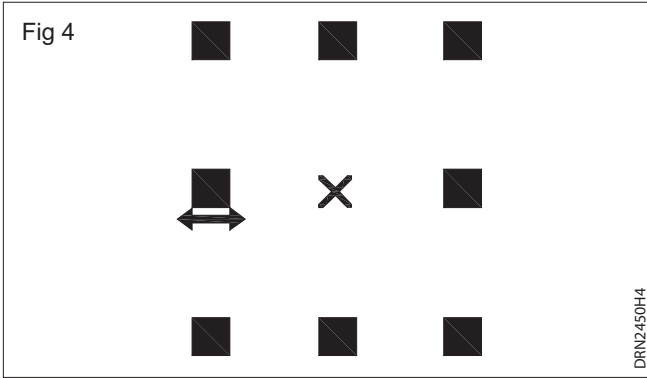


- 5 The top and bottom stretching handles stretch the object vertically. (Fig 3)



- 6 The left and right stretching handles stretch the selection horizontally. (Fig 4)
- 7 To activate an object's rotation and skewing handles, click the centre handle.

Fig 4



Free Hand Pick Tool.

Select objects by using a freehand selection marquee. Position and transform objects.

Selecting objects



Free Hand Pick Tool

- 8 Drag around the objects that you want to select. Object that are partially enclosed by the selection area are not selected
- 9 To select objects that are partially enclosed by the selection area, hold down **Alt** while dragging.



Shaping Tool

Edit a curve object or text character by manipulating nodes.

Shaping objects



Shape tool

- 10 To start changing the shape of an object, click it with **shape** tool to display its nodes.

Each type of object provides a specialized set of shaping methods.



Smudge Brush Tool

change the shape of an object by dragging along its outline.

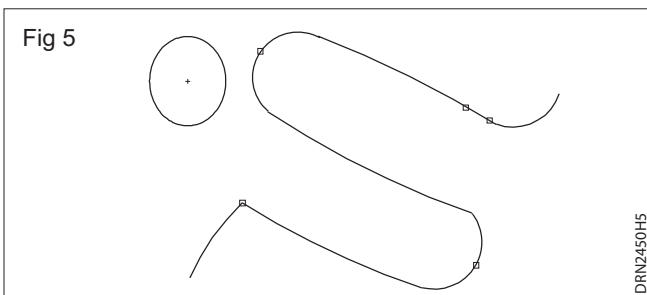
Smudge objects



Smudge brush tool

- 11 To smudge the inside of a selected object, click the outside of the object and drag inward.
- 12 To smudge the outside of a selected objects click the inside of the object and drag outward. (Fig 5)

Fig 5



Roughen Brush Tool

Distort the edge of an object by dragging along outline.

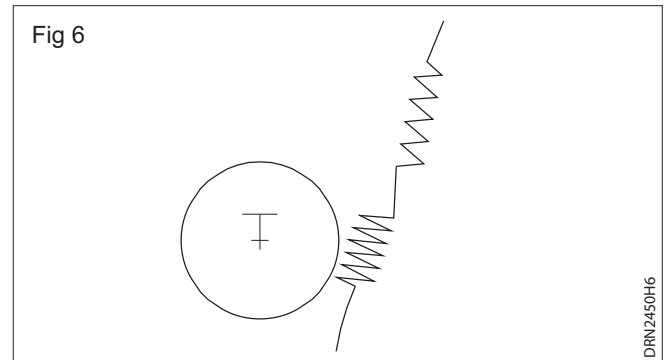
Roughening objects



Roughen brush tool

- 13 To roughen a selected object, point to the area on the outline you want to roughen, and then drag the outline to distort it. (Fig 6)

Fig 6



- 14 To change the nib size, type a value in the Nib size box on the property bar, and then press **Enter**



Free Transform Tool

Rotate , skew, morror and scale objects.

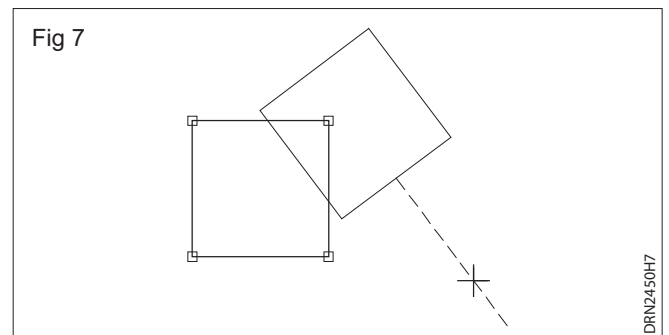
Transforming Objects Interactively



Free transform tool

- 15 To rotate a selected object around a fixed point, click the **Free rotation tool** button  on the property bar, click in the drawing window to fix the anchor point, and then drag. (Fig 7)

Fig 7



- 16 To choose a different free **transform mode**, click one of the following button on the property bar:
- 17 Free angle reflection tool button  - lets you scale a selected object, or mirror it horizontally or vertically
- 18 Free scale tool button  -lets you resize a selected object by scaling it along the horizontal and vertical axes simultaneously, relative to its anchor point
- 19 Free skew tool button  -lets you skew a horizontal and vertical lines of an object simultaneously, relative to its anchor point.
- 20 To transform a selected object by using the mode you've chosen, click in the drawing window to fix the anchor point and then drag.



Smear tool

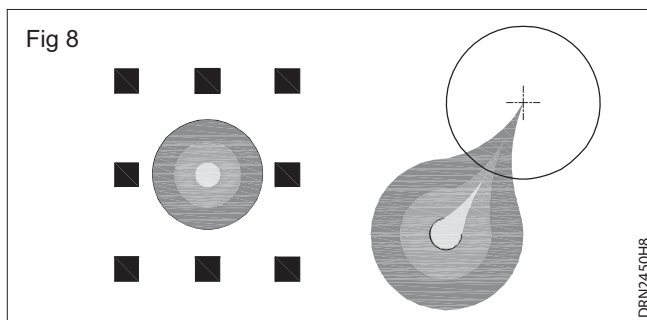
Change the edge of an object by dragging along its outline.

Smearing object



smear tool

- 21 To smear the outside of an object, click inside an object, close to its edge, and drag outwards. (Fig 8)
- 22 To smear the inside of a selected object, click outside an object, close to its edge, and drag inwards.
- 23 To change the nib size, type a value in the **Nib radius** box on the property bar, and then press **Enter**



TASK 2: Create effects using tools

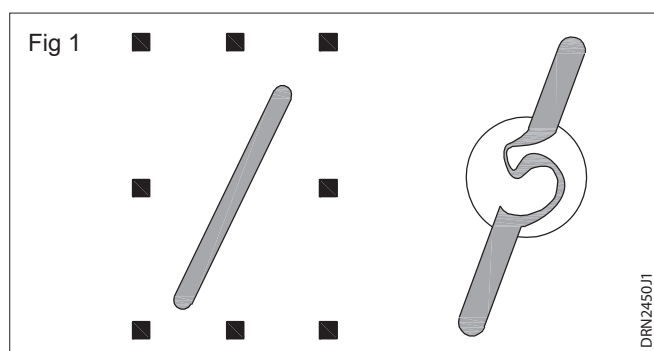
Twirl tool - Add swirl effects by dragging along the outline of an object.

Adding twirl effects



Twirl tool

- 1 Click the edge of an object, and hold down until the twirl is the size you want. To position and reshape the twirl, drag while holding down the mouse button. (Fig 1)



- 2 To change the nib size, type a value in the **Nib radius** box on the property bar, and then press **Enter**.
- 3 To set the speed at which the twirl effect is applied, type a value in the **Rate** box, and press **Enter**.
- 4 To set the direction of the twirl effect, click the counter clockwise twirl button or the clockwise twirl button the property bar.

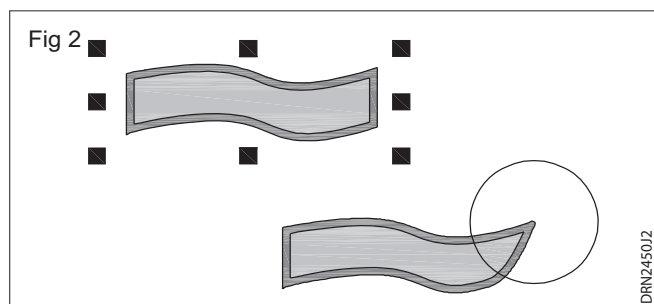
Attract tool - Reshape objects by attracting nodes to the cursor.



Shaping objects by attracting nodes

Attract tool

- 5 Click inside or outside a selected object, close to its edge, and hold down to reshape the edge. For a more pronounced effect, drag while holding down the mouse button. (Fig 2)



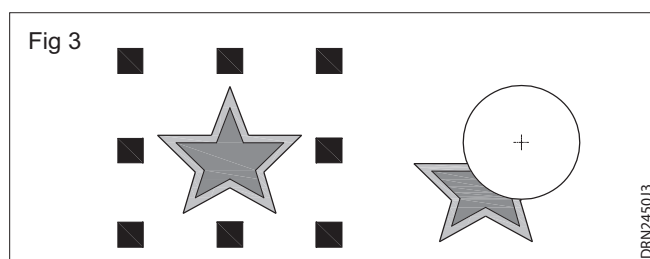
- 6 To change the nib size, type a value in the **Nib radius** box on the property bar, and then press **Enter**.

Repel tool - Reshape objects by pushing nodes away from the cursor.



Repel tool

- 7 Click inside or outside a selected object, close to its edge, and hold down the mouse button to reshape the edge. For a more pronounced effect, drag while holding down the mouse button. (Fig 3)



- 8 To change the nib size, type a value in the **Nib radius** box on the property bar, and then press **Enter**.

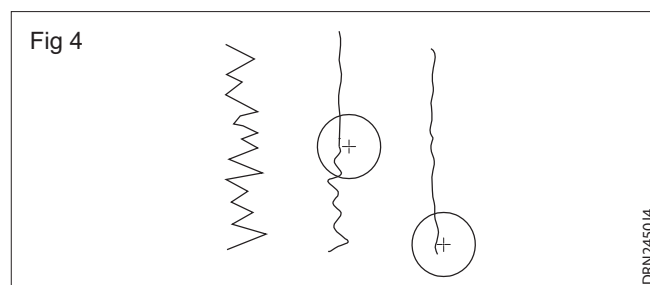
Smoothing tool - Smooth object by dragging along its outline

Smoothing objects



Smooth tool

- 9 Drag along the object edge.
- 10 To change the nib size, type a value in the **Nib radius** box on the property bar, and press **Enter**. (Fig 4)



- 11 To set the speed at which the smoothing effect is applied, type a value in the rate box, and press **Enter**.

TASK 3: Create crop design

Crop tool - Remove the areas outside a selection

Cropping Objects



- 1 To crop selected objects, drag to define the protected area.

You can use the crop tool on both bitmap and vector objects. (Fig 1)

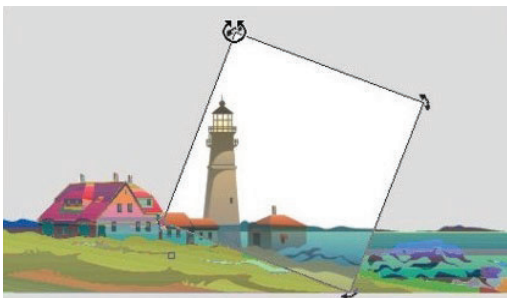
Fig 1



DRN2450K1

- 2 To rotate the protected area, click it, and then drag a rotation handle. (Fig 2)

Fig 2



DRN2450K2

- 3 To crop the selected objects to the protected area, double click the protected area.

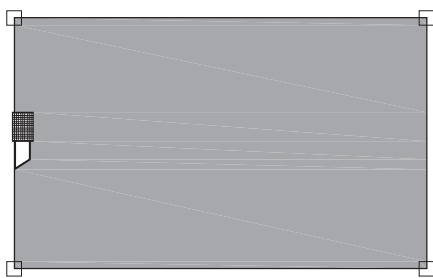
Knife tool- Slice an object to split in into two separate objects.

Splitting objects



- 4 To start cutting or splitting an object, position the knife tool over the outline of the object where you want to cutting, and click. (Fig 3)

Fig 3

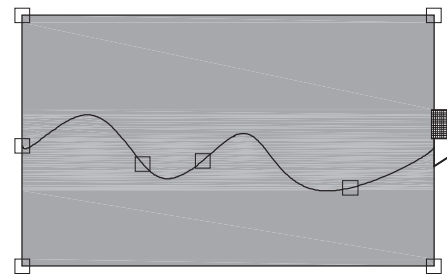


DRN2450K3

- 5 To create a freehand cut line, drag where you want to cut. (Fig 4)
- 6 To cut object along a bezier line, hold down **Shift**, click where you want to place the first node, drag the control

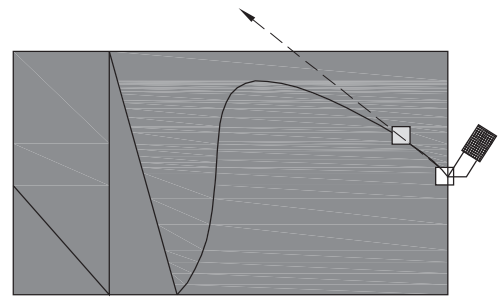
handle to where you want to position the next node, and click. Continue clicking to add additional straight segments to the line. To add a curved segment, point to where you want to place nodes, and drag to shape the curve. (Fig 5)

Fig 4



DRN2450K4

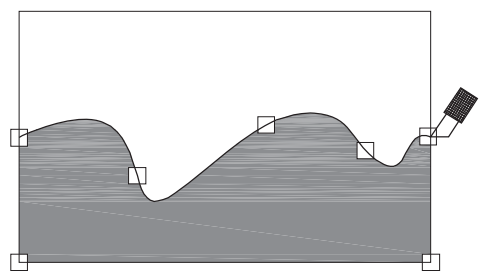
Fig 5



DRN2450K5

- 7 To complete your task, point to where you want to stop cutting on the outline of the object, and click when the **knife** tool snaps upright.
- 8 To finish cutting the object while keeping only one of its parts, point to where you want to stop cutting, press **Tab** once or twice until only the part you want to keep is selected, and then click. (Fig 6)

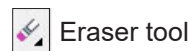
Fig 6



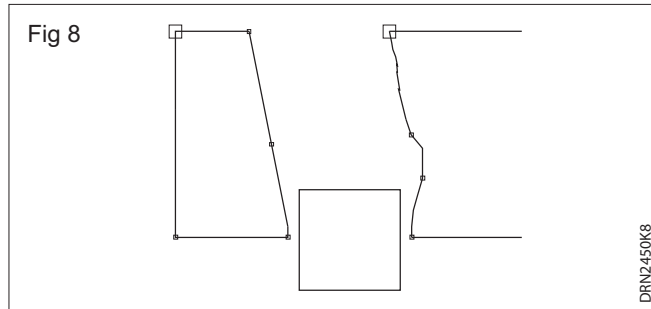
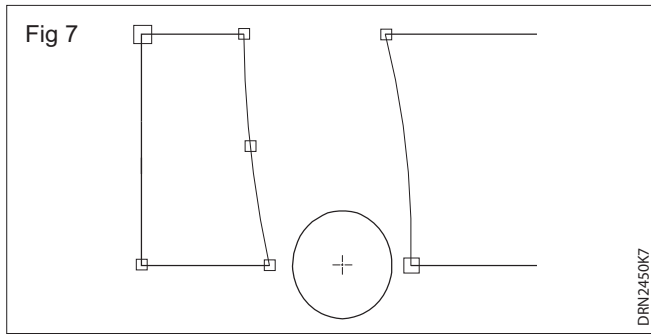
DRN2450K6

Eraser tool (x) - Remove unwanted areas in a drawing.

Erasing portion of objects

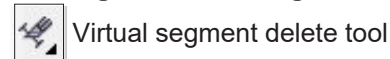


- 9 To erase part of a selected object, drag where you want to erase. (Fig 7)
- 10 To toggle between a square nib and round nib, click the **Eraser shape** button  on the property bar. (The **Eraser shape** button applies a square nib when pressed ). (Fig 8)
- 11 To change the thickness of the nib, hold down **Shift** and drag up to increase the nib size or down to decrease the nib size.

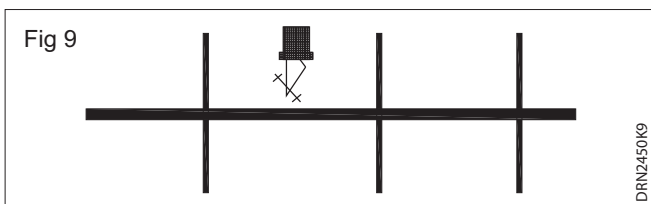


Virtual segment delete tool - **Remove overlapping segment in objects.**

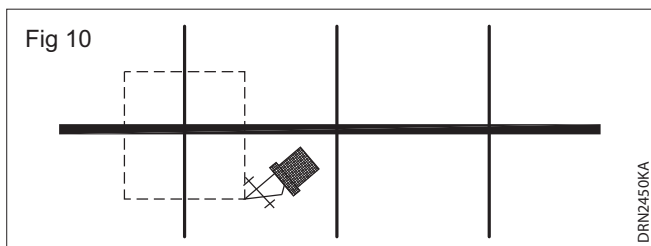
Deleting virtual line segments



12 To delete a virtual line segment, move the pointer to the line segment you want to delete, and then click the line segment. (Fig 9)



13 To delete multiple line segment at one time, drag a marquee around all line segments that you want to delete. Hold down **Ctrl** to constrain the marquee to a square. (Fig 10)



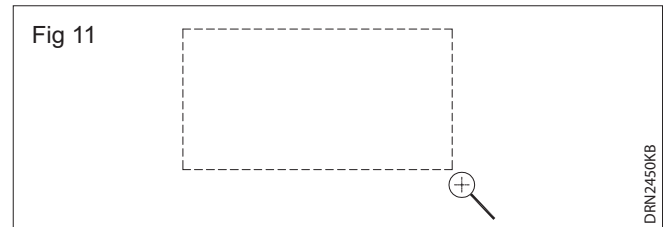
Zoom tool (Z) - **change the magnification level of the document window**

Zooming



14 To zoom in on a portion of your work, click in the drawing window.

15 To zoom in to a selected area of your work, drag to define the area. (Fig 11)



16 To zoom in to all objects on the page, double-click the **Zoom** tool.

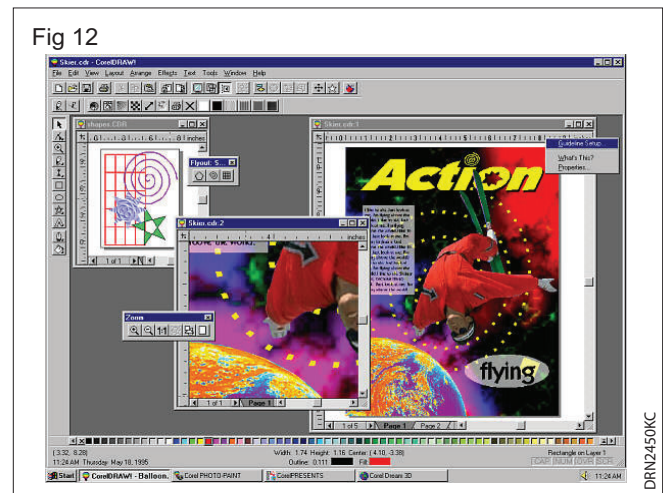
17 To zoom out, right-click (or hold down **Shift** and click) in the drawing window.

Pan tool (H) - **Drag hidden areas of a drawing into view without changing zoom level.**

Panning



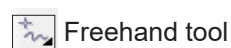
18 To view a different part of the page, drag anywhere on the page. (Fig 12)



TASK 4: Draw a line using free hand tool

Freehand tool (F5) - **Draw curves and straight line segments.**

Drawing freehand lines



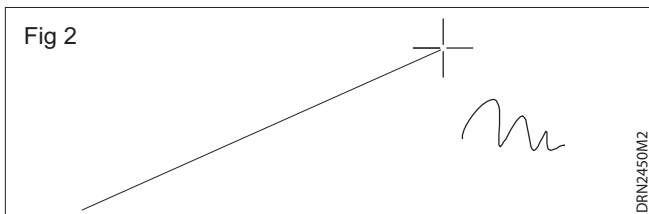
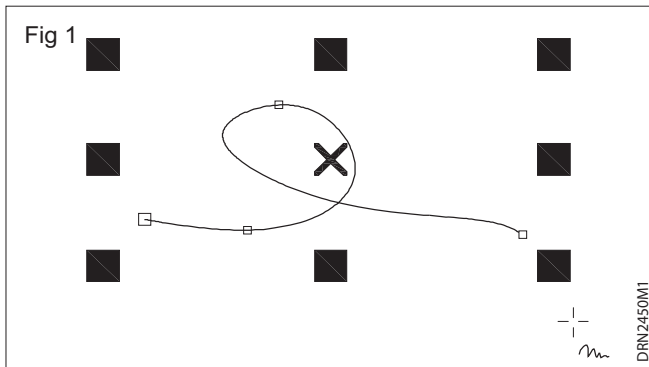
1 To draw, drag the mouse like a pencil on a paper. (Fig 1)

2 To erase as you draw, hold down **shift** and drag backwards.

3 To draw a straight line, click where you want the line to begin, and then click where you want it to end. (Fig 2)

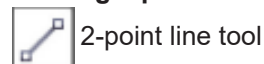
4 To set option, double-click the **Freehand** tool.

5 To change a line or curve's shape, click the **shape** tool



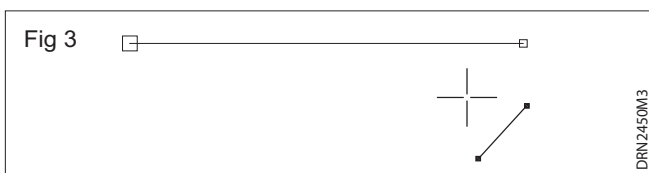
2 - Point Line tool - draw a straight line by drawing from the starting point to the end point.

Drawing 2-point lines

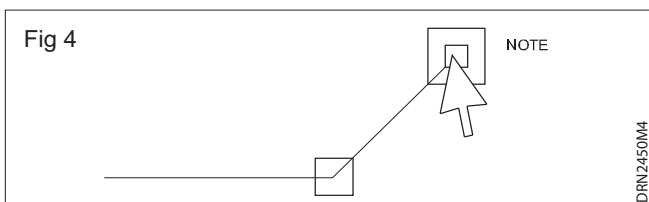


6 To start drawing, click in the drawing window.

7 To draw a straight line, point to where you want to start the line, and drag to draw the line. (Fig 3)



8 To add a line segment to a selected line, point to the end node of a selected line, and draw the line. (Fig 4)



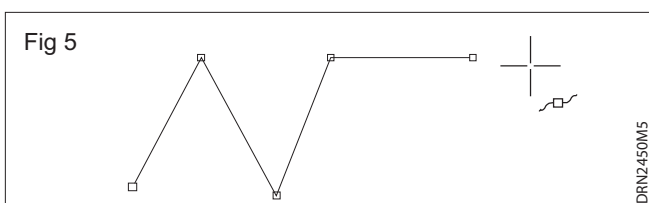
Bezier tool - Draw curves one segment at a time

Drawing Bezier lines

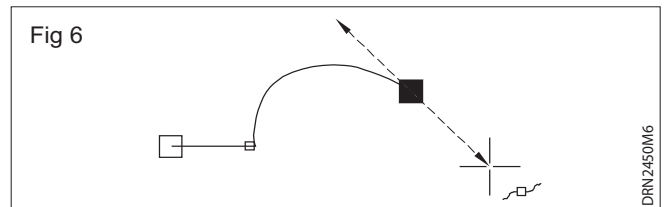


9 To start drawing, click in the drawing window.

10 To draw straight line, point to where you want to end the line, and then click. (Fig 5)



11 To draw a curve, drag to define it, holding down **Ctrl** if you want to constrain the curve to 15-degree increments. (Fig 6)



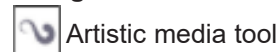
12 To stop drawing, press the **spacebar**.

13 To set option, double-click the **Bezier** tool.

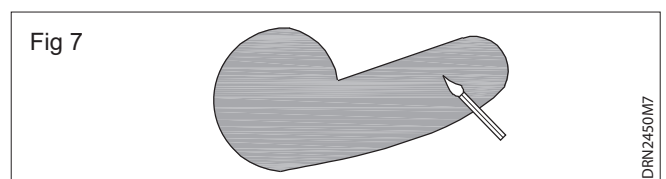
14 To change a line or curve's shape, click the **Shape** tool

Artistic Media tool(I) - Add artistic brush,spray, and calligraphic effects by using freehand strokes.

Using artistic media



15 To draw with the **Artistic media** tool, drag along the path you want, as with pencil on paper. (Fig 7)



16 To choose a drawing mode, click the appropriate button on the property bar:

- a Preset mode button - lets you draw preset curves
- b Brush mode button - lets you draw brush curves
- c Sprayer mode button - lets you spray object
- d Calligraphic mode button - lets you draw calligraphic curves
- e Pressure mode button lets you draw pressure-sensitive curves

17 To specify settings for the drawing mode you've chosen, use the controls on the property bar.

18 If you are using the mouse, press the **Up arrow** or **Down arrow** to simulate changes in pen pressure and change the width of the line.

Pen tool - Draw curves in segments and preview each segment as you draw.

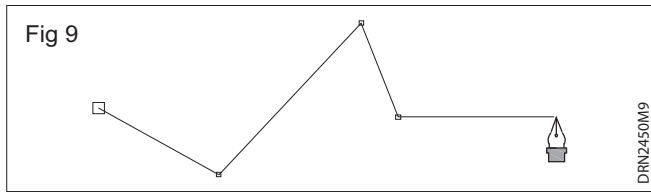
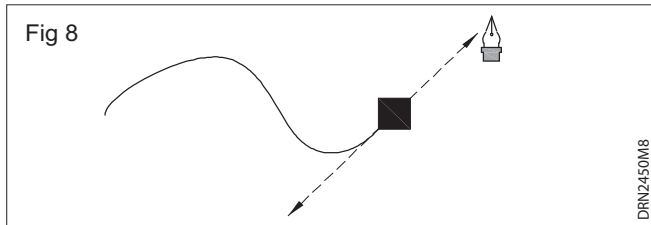
Drawing precision lines.



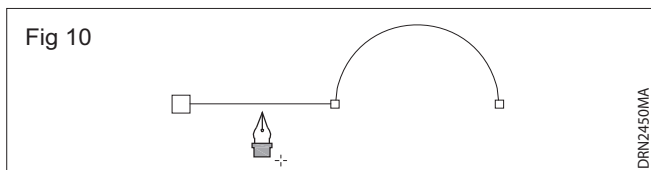
19 To draw a curved segment , click where you want to place the first node, and then drag the control handle to where you want to place the next node. Release the mouse button, and then drag the control handle to create the curve you want. (Fig 8)

20 To draw a straight segment, click where you want to start the line segment , and then click where you want to end it. (Fig 9)

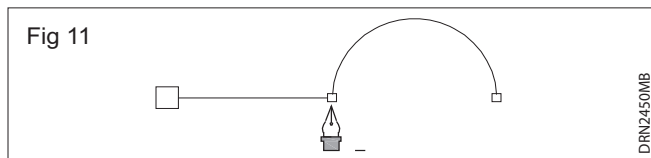
21 To finish the line, double click.



22 To add a node, point to where you want to add the node, and then click. (Fig 10)



23 To delete a node, point to it, and then click. (Fig 11)

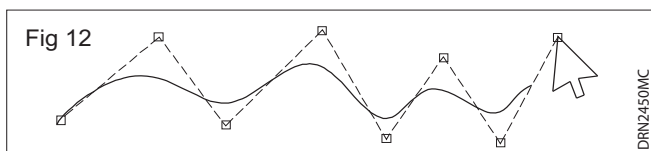


B-Spline tool - Draw curved lines by setting control points that shape the curve without breaking it into segments.

Drawing B-splines

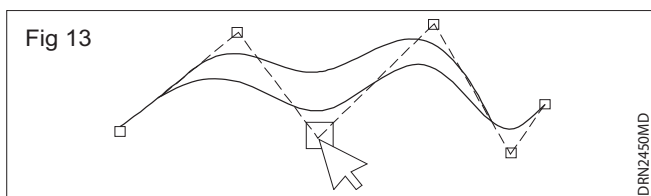
 B-spline tool

24 To draw a B-spline, click where you want to start the line, then click to set as many control points as you need to shape your line. (Fig 12)



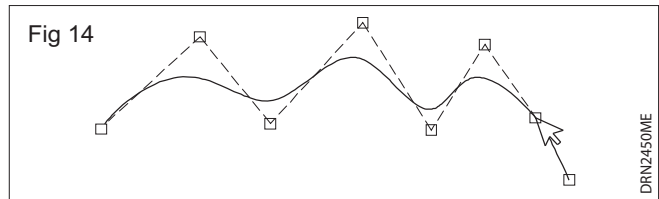
25 To end the line, double-click

26 To reshape the line by using control points, select the line by using the shape tool  and reposition the control points to reshape the line. (Fig 13)



27 To add a control point, select the line by using the shape tool  and double-click along a control line Fig 14.

28 To delete a control point, select the line by using the shape tool  and double-click the control point that you want to delete.

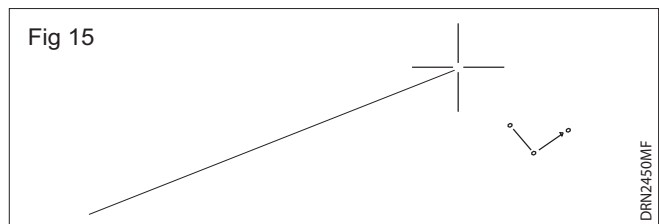


Polyline tool - Draw connected curves and straight lines in one continuous action.

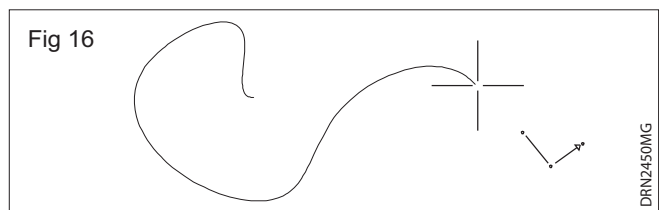
Drawing polylines

 Polyline tool

29 To draw a straight segment, click where you want to start the line segment, and then click where you want to end it. (Fig 15)



30 To draw a curved segment, click where you want to start the segment, and then drag across the drawing page. (Fig 16)



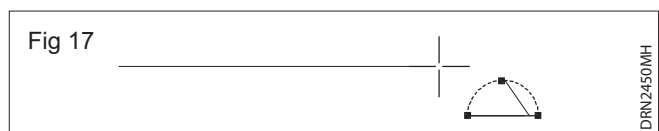
31 To end the line, double-click.

3-Point Curve tool - Draw a curve by dragging from the starting point to the endpoint and then positioning the centre point.

Drawing precise curves

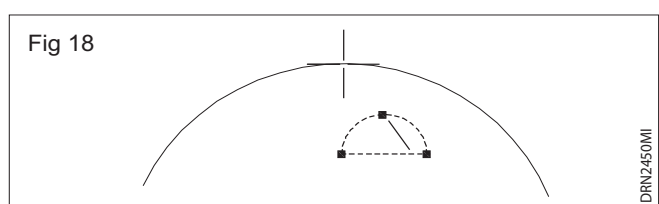
 3 point curve tool

32 To define the start and end points of the curve, click where you want to start the curve, and then drag to where you want the curve to end. (Fig 17)



33 To define the centre point of the curve, release the mouse button, and then click where you want the centre of the curve to be.

Smart Fill tool - Create objects from overlapping areas, and apply a fill to those objects Fig 18.



TASK 5: Create overlap filling design

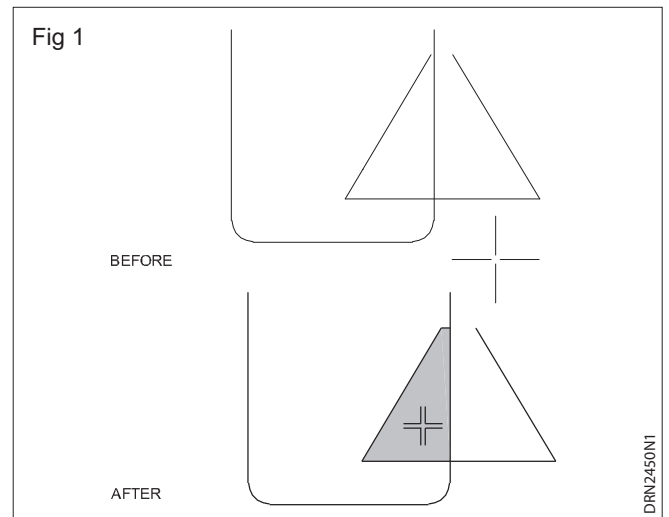
Filling object overlaps



Smart fill tool

- 34 To fill an area where objects overlap, choose your settings the property bar, and then click the area. (Fig 1)

Smart Drawing tool (Shift+S) - **Convert freehand strokes to basic shapes or smoothed curves.**



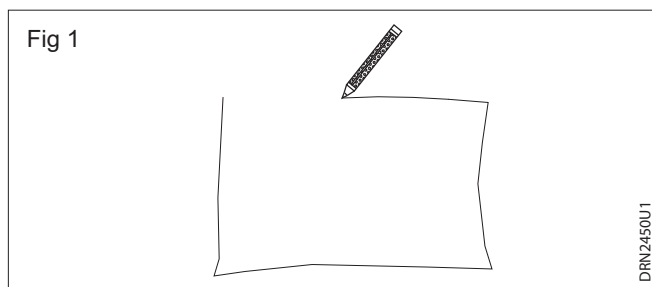
TASK 6: Create box using rectangle tool overview

Using shape recognition



Smart drawing tool

- 1 To draw a shape or a line by using shape recognition, draw a shape or a line in the drawing window. (Fig 1)



The freehand stroke that you draw is converted to a basic shape or smoothed curve. (Fig 2)

- 2 To erase as you draw, hold down **Shift** and drag backward.
- 3 To specify shape recognition setting, use the property bar.

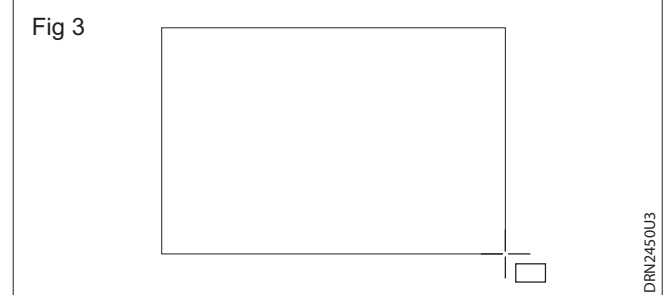
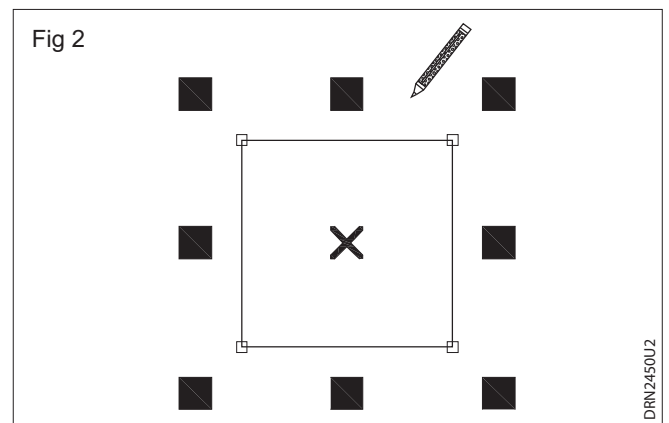
Rectangle tool (F6) - **Draw squares and rectangles by dragging in the drawing window.**

Drawing rectangles



Rectangle tool

- 4 To draw a rectangle, drag where you want to place it. (Fig 3)



Holding down ctrl draws a square, while holding down Shift draws from the centre.

- 5 To change the rectangle's shape, click the **shape** tool

TASK 7: Create ellipse

Ellipse tool (F7) - **Draw circles and ellipse by dragging in the drawing window.**

Drawing ellipses

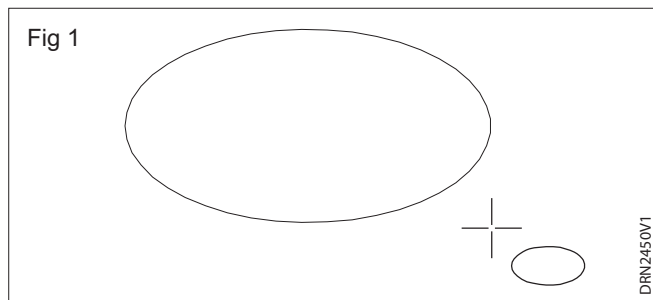


Ellipse tool

- 1 To draw an ellipse, drag where you want to place it. (Fig 1)

Holding down Ctrl draws a circle, while holding down Shift draws from the centre.

- 2 To change the ellipse into a pie shape or an arc, click the pie button  or the Arc button  on the property bar.



To change a pie shape or an arc back to an ellipse, click the Ellipse button 

3 To change the ellipse's shape, click the **shape** tool

3-Point Ellipse tool-Draw ellipses at an angle.



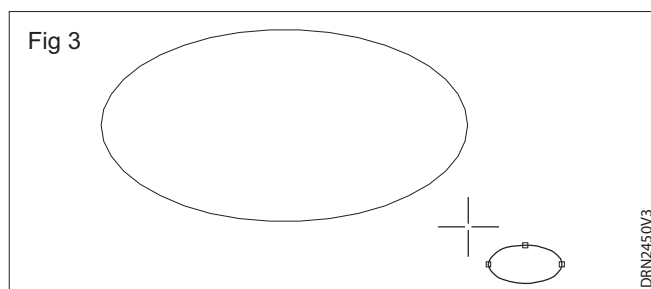
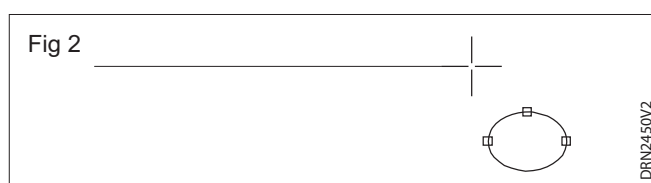
Drawing precise ellipses



3 point ellipse tool

4 To define the width of the ellipse, drag to draw the center line of the ellipse at the angle you want, and then release the button. (Fig 2)

5 To define the height of the ellipse, move the pointer, and then click. (Hold down **Ctrl** to draw a circle). (Fig 3)



6 To change the ellipse into a pie shape or an arc, click the pie button  or the **Arc** button on the property bar.

To change a pie shape or an arc back to an ellipse, click the Ellipse button. 

7 To change the ellipse's shape, click the **Shape** tool.



TASK 8: Use drawing tool

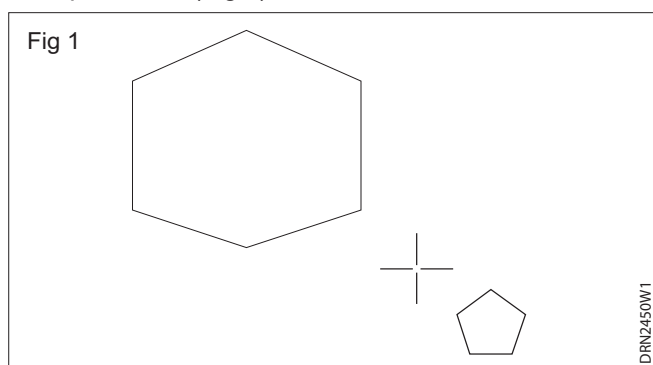
Polygon tool (Y) - **Draw polygons by dragging in the drawing window.**

Drawing polygons



Polygon tool

1 To draw a polygon, drag where you want to place it, holding down **Ctrl** if you want to draw a polygon with equal sides. (Fig 1)



2 To adjust the number of sides or points on a selected polygon, type a value in the Number of points or side on polygon, star and complex star box on the property bar.

3 To change the polygon's shape, click the **Shape** tool

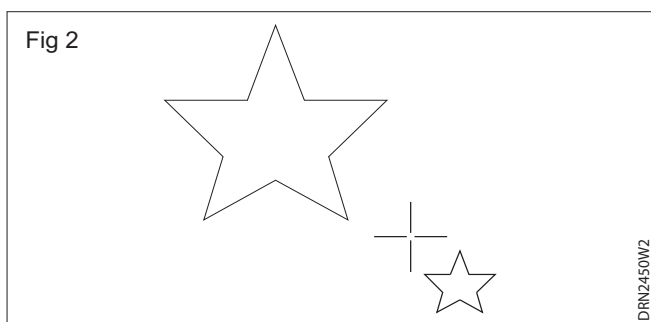
Star tool - Draw uniform, outlined stars.

Drawing perfect stars



Star tool

4 To draw a perfect star, drag where you want to place it, holding down **Ctrl** if you want to draw a perfect star with equal sides. (Fig 2)



5 To adjust the number of sides or points on a selected star, type a value in the **points or sides** box on the property bar.

6 To adjust the sharpness of a selected star, type a value in the sharpness box on the property bar.

7 To change the perfect star's shape, click the **Shape** tool.



Complex star tool - **Draw star that have intersecting sides.**

Drawing complex stars

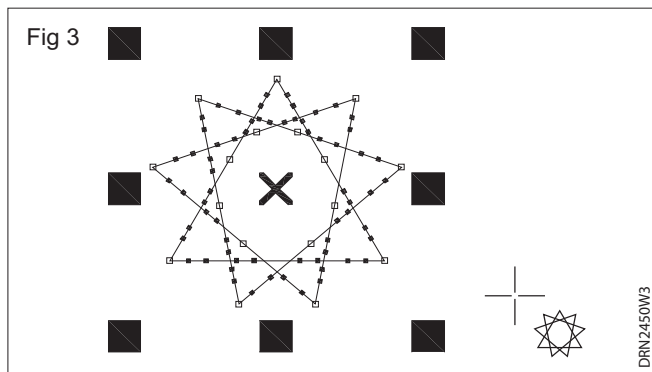


Complex star tool

8 To draw a complex star, drag where you want to place it, holding down **Ctrl** if you want to draw a complex star with equal sides. (Fig 3)

9 To adjust the number of sides or points on a selected star, type a value in the points or sides box on the property bar.

10 To adjust the sharpness of a selected star, type a value in the **Sharpness** box on the property bar.



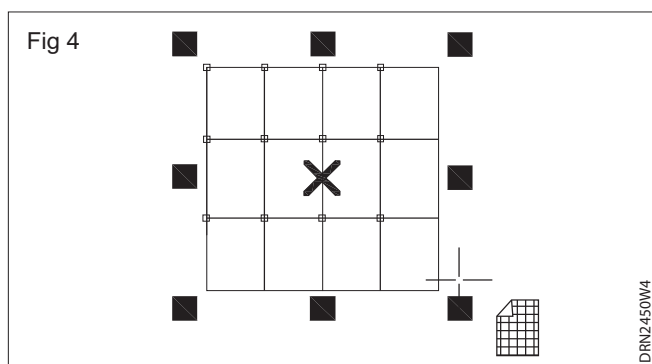
11 To change the complex star's shape, click the **Shape** tool. 

Graph paper tool (D) - Draw a grid 

Drawing grids

 Graph paper tool

12 To draw a grid, use the controls on the property bar to set the number of columns and rows, and drag in the drawing window where you want to place the grid. To make the outer boundary a square, hold down **Ctrl** while dragging. (Fig 4)



Spiral tool (A) - **Draw symmetrical and logarithmic spirals.**

Drawing spirals

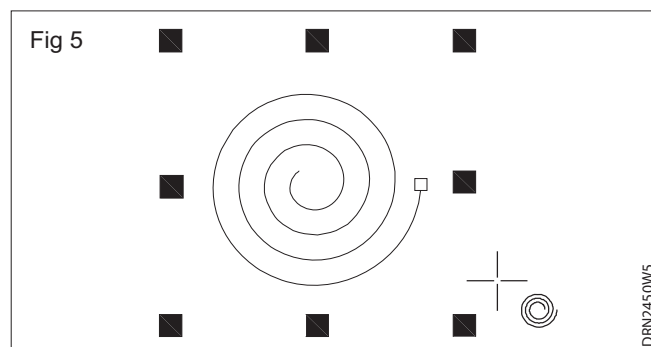
 Spiral tool

13 To draw a spiral, choose a spiral type from the property bar by clicking the  **Symmetrical spiral** button or the Logarithmic spiral button . and then drag in the drawing window where you want to place the spiral. (Fig 5)

14 To specify the tightness of a spiral, type a value in the spiral revolution box on the property bar.

15 To change the spirals shape, click the Shape tool.

Basic shapes tool - Draw triangles, circles, cylinders, hearts and other shapes.

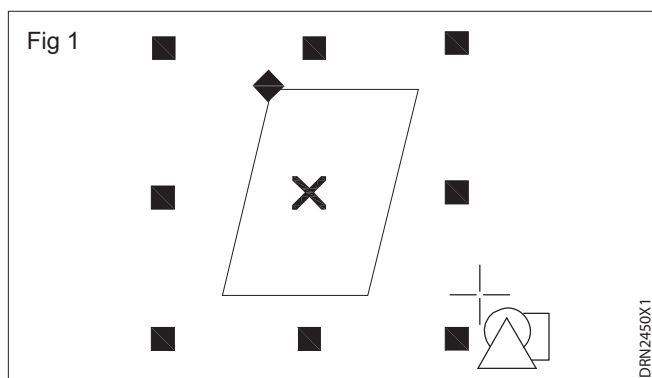


TASK 9: Create basic shape

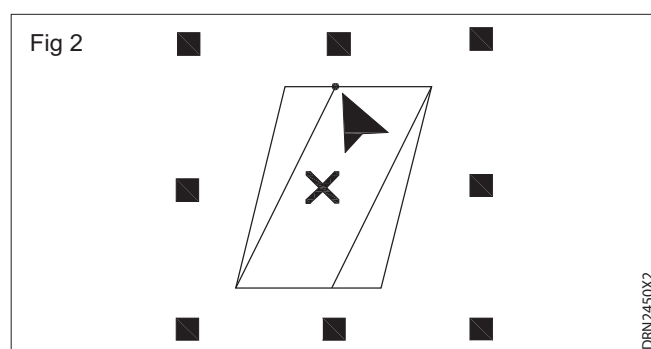
Drawing basic shades

 Basic shapes tools

1 To draw a basic shape, choose a shape from the perfect shapes picker on the property bar, and then drag in the drawing window until the shapes is the size you want. (Fig 1)



2 To adjust the basic shape, drag its glyph. (Fig 2)

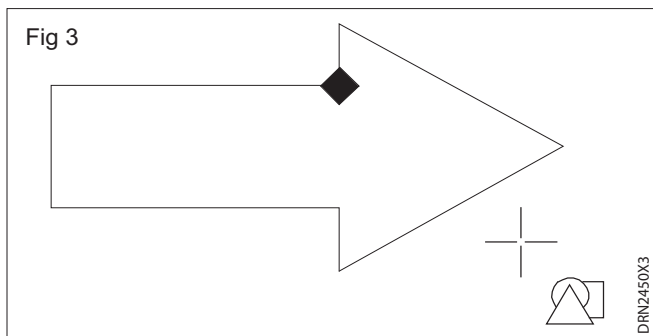


Arrow Shapes tool - Draw of various shapes and directions.

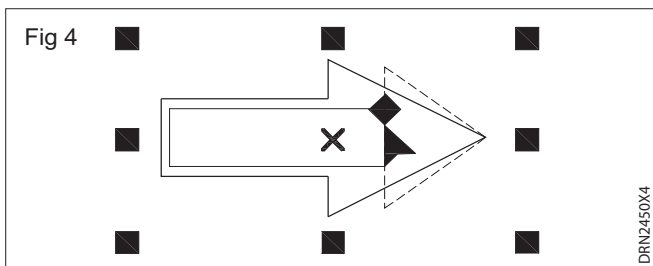
Drawing arrow shapes

 Arrow shapes tool

3 To draw an arrow shape, choose a shape from the perfect shapes picker on the property bar, and then drag in the drawing window until the shape is the size you want. (Fig 3)

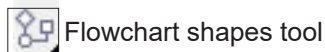


4 To adjust the arrow shape, drag its glyph. (Fig 4)

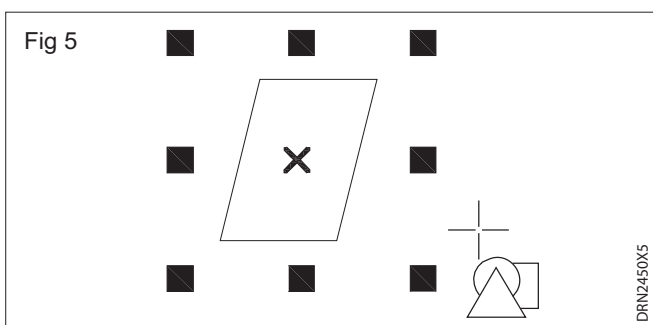


Flowchart shapes tool - Draw flowchart symbols.

Drawing flowchart shapes

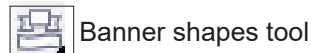


5 To draw a flow chart shape, choose a shape from the **Perfect Shapes** picker on the property bar, and then drag in the drawing window until the shape is the size you want. (Fig 5)

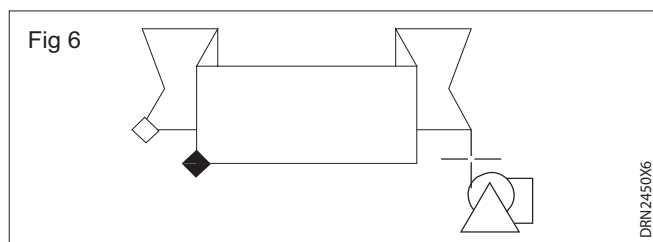


Banner shapes tool- Draw ribbon objects and explosion shapes.

Drawing banner shapes

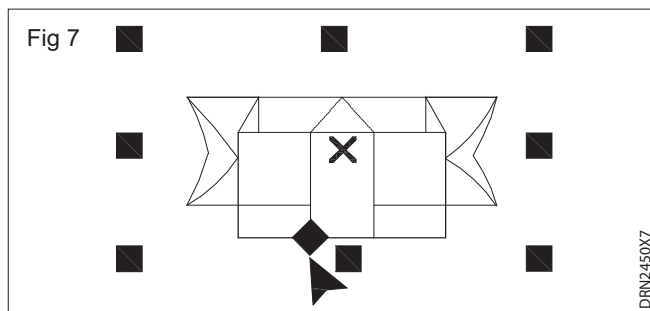


6 To draw a banner shape, choose a shape from the **Perfect shapes** picker on the property bar, and then drag in the drawing window until the shape is the size you want. (Fig 6)

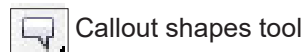


7 To adjust the banner shape, drag its glyphs. (Fig 7)

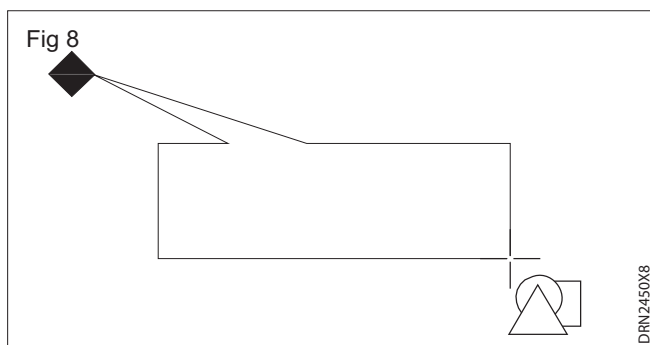
Callout Shapes tool - Draw labels and speech bubbles.



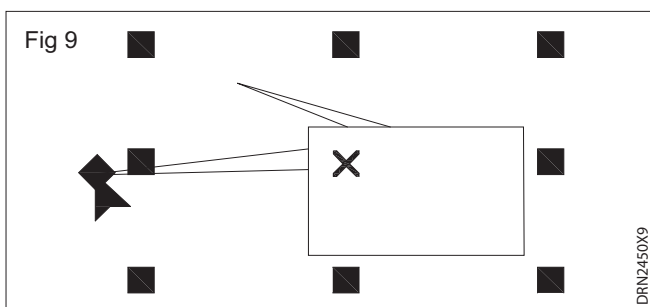
Drawing callout shapes



8 To draw a callout shape, choose a shape from the **Perfect Shapes** picker on the property bar, and then drag in the drawing window until the shape is the size you want. (Fig 8)

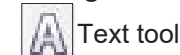


9 To adjust the callout shape, drag its glyph. (Fig 9)



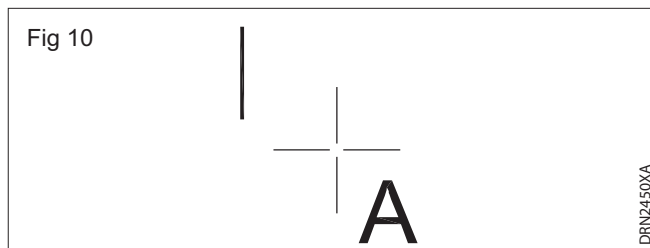
Text tool (F8) - Add and edit paragraph and artistic text.

Adding text

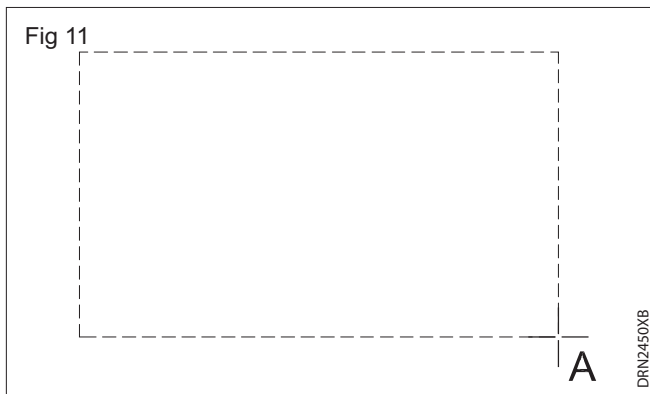


You can create two kind of text: artistic text and paragraph text.

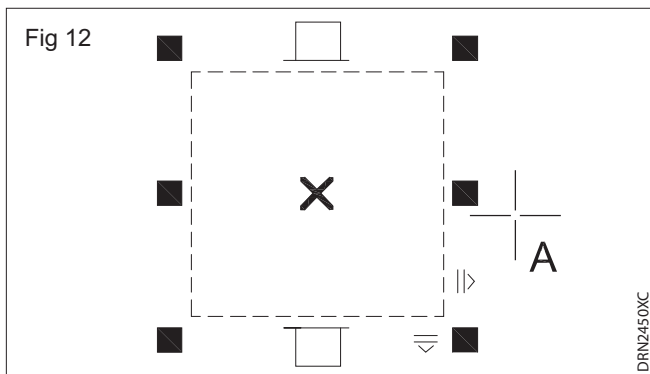
10 To add artistic text, click anywhere on the page, and then start typing. (Fig 10)



11 To add paragraph text, drag to create a paragraph text frame. (Fig 11)



A frame appears that marks where you can type. (Fig 12)



- 12 To add paragraph text to the inside of an object, position the pointer at the inside border of the object, and then when the pointer changes to an insert cursor, begin typing. (Fig 13)

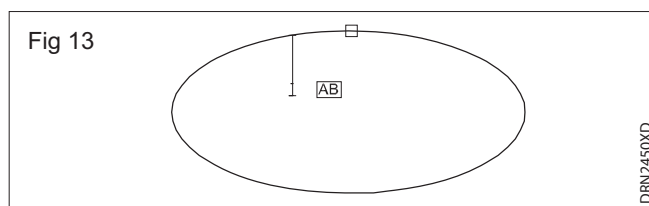


Table tool - Draw, select and edit tables.

Adding tables to drawings



Table tool

- 13 To add a table to a drawing, click the table tool, type values in the rows and columns boxes on the property bar and then drag diagonally to draw the table.
- 14 To modify the table border, click the border selection button on the property bar, choose the lines you want to modify, and then choose a line width from the width list box.

TASK 10: Create dimension lines

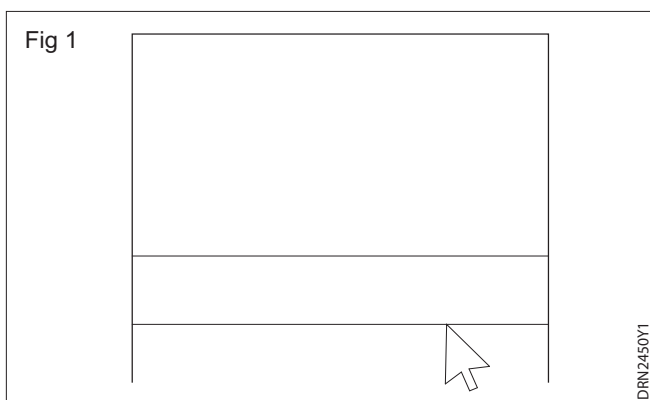
ParallelDimension tool - Draw slanted dimension lines.

Drawing Parallel dimension lines



Parallel dimension tool

- 1 To draw a parallel dimension line, click the point where you want to start the line, and drag to where you want to place the endpoint of the dimension lines. (Fig 1)



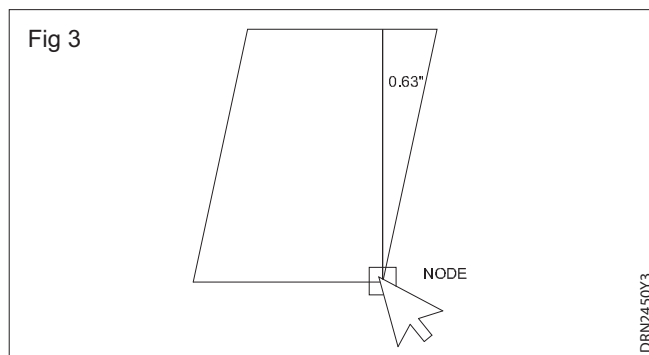
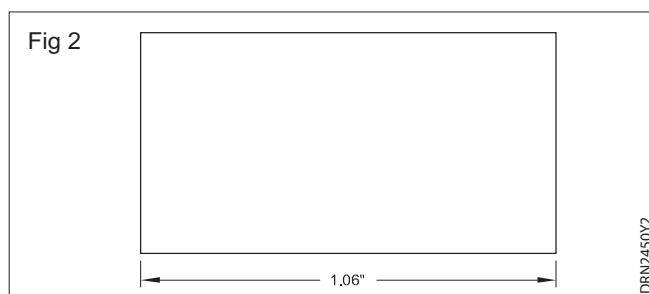
- 2 Release the mouse, then move the pointer horizontally or vertically to position the dimension line. (Fig 2)
- 3 Click to place the dimension text. (Fig 3)

Horizontal or vertical Dimension tool - **Draw horizontal or vertical dimension lines.**

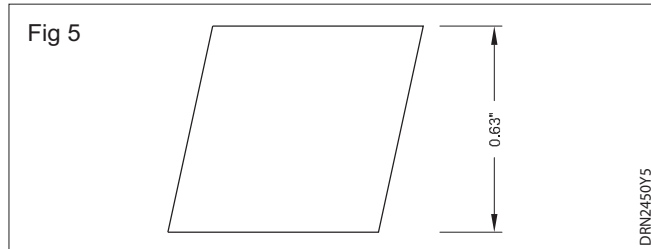
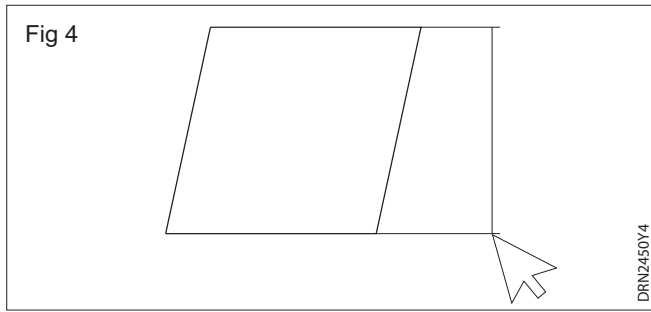
Drawing Horizontal or vertical dimension lines



Horizontal or vertical dimension tool



- 4 To draw a vertical or horizontal dimension line, click the point where you want to start the line, and drag to where you want to place the endpoint of the dimension line. (Fig 4)
- 5 Release the mouse, and move the pointer vertically or horizontally to position the dimension line. (Fig 5)
- 6 Click to place the dimension text.

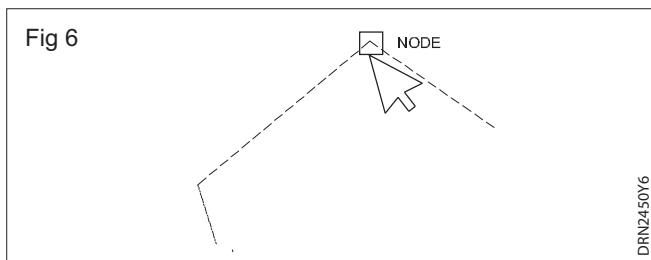


Angular Dimension tool - Draw angular dimension lines.

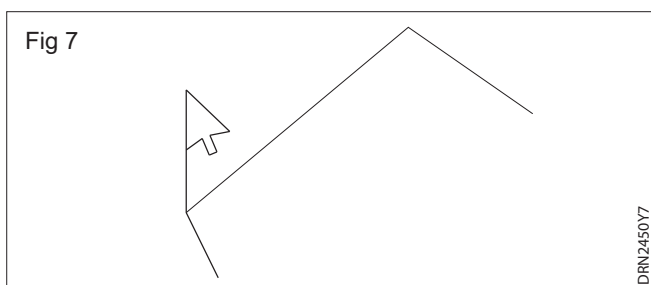
Drawing Angular dimension lines

 Angular dimension tool.

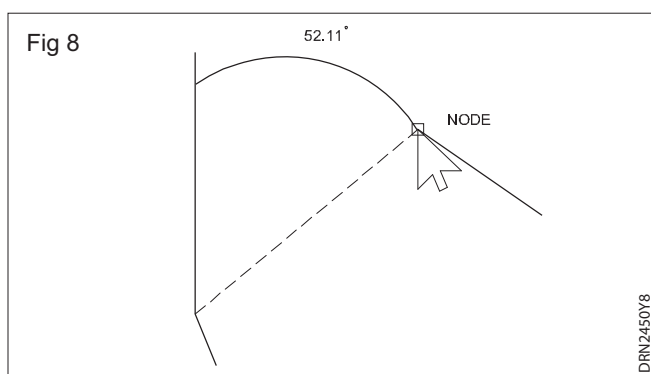
7 To draw an angular dimension line, click where you want the two lines that measure the angle to intersect. (Fig 6)



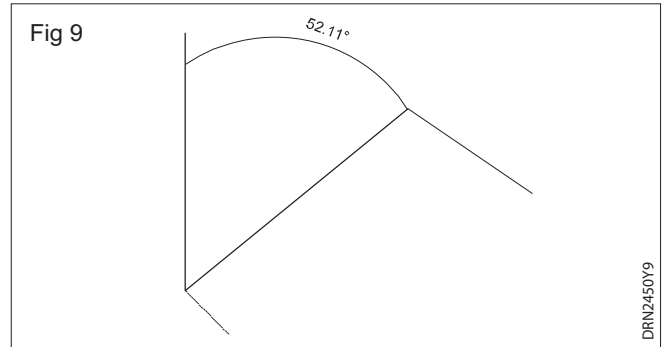
8 Drag to where you want the first line to end. (Fig 7)



9 Release the mouse, and position the pointer where you want the second line to end. (Fig 8)



10 Double-click when achieve the correct angle. (Fig 9)

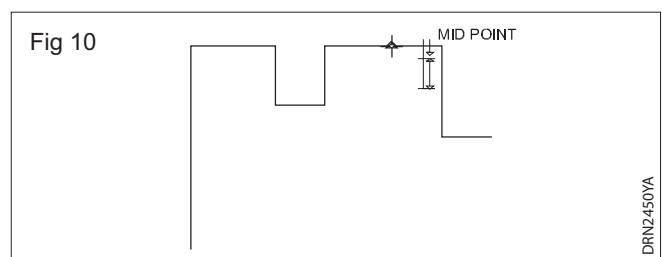


Segment Dimension tool - Display the distance between end nodes on single or multiple segments.

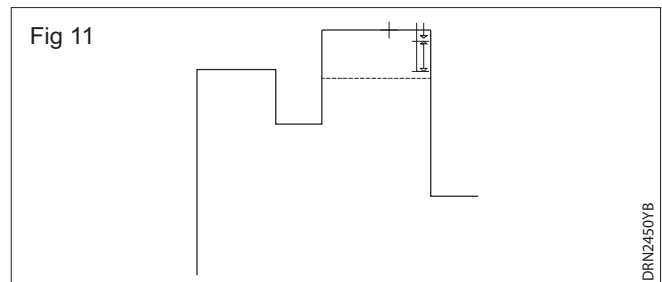
Drawing Segment dimension lines

Segment dimension tool

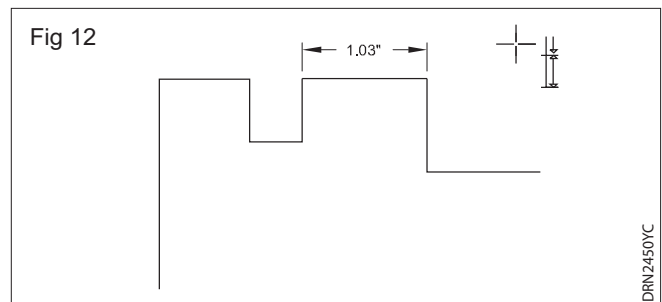
11 To draw a segment dimension line, click anywhere along the segment that want to measure. (Fig 10)



12 Move the pointer to where you want to position the dimension lines. (Fig 11)



13 Click where you want to place the dimension text. (Fig 12)



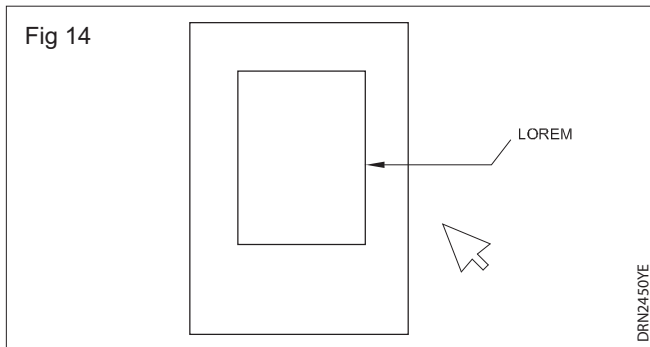
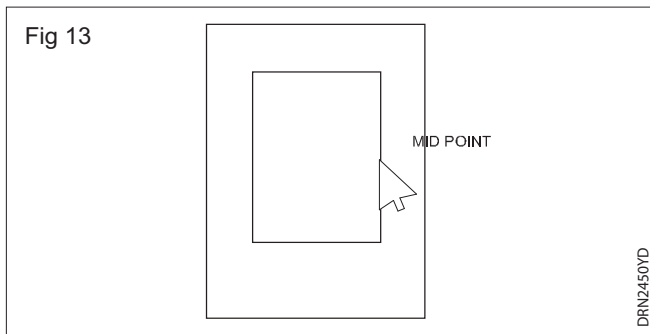
3-Point callout tool - Draw a callout with a two - segment leadingline.

Drawing callouts

 3-point callout tool

14 To draw a callout line, click where you want to place the arrow head. (Fig 13)

15 Drag the pointer to where you want to end the first line segment. (Fig 14)



16 Release the mouse, and then click to end to end the second line segment.

17 Type the callout text.

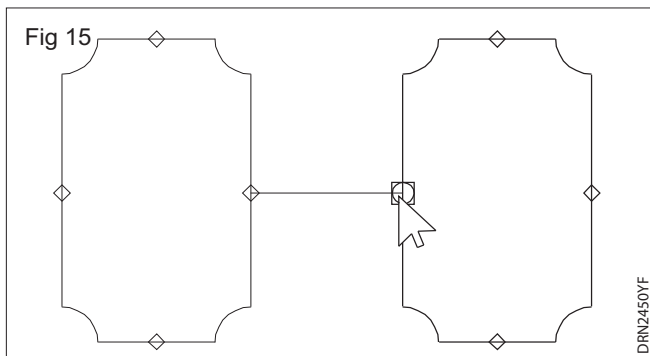
Straight - line connector tool - Draw a straight line to connect two objects.

Drawing straight connector lines

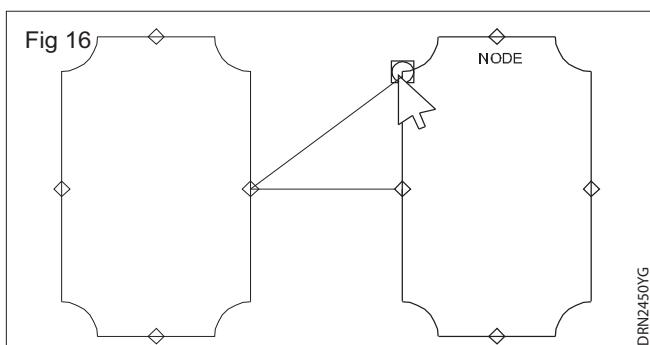


Straight - line connector tool

18 To draw a straight connector line, drag from an anchor point on the first object to an anchor point on the second object. (Fig 15)



19 To change the position of a connector line, selected a line by using the **Shape tool** and drag the node to a new location. (Fig 16)



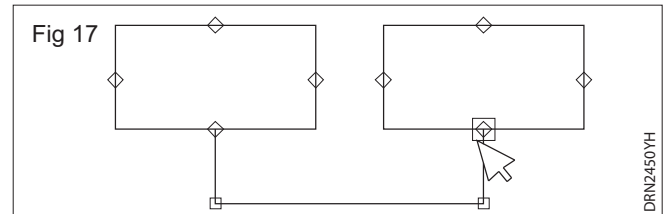
Right - Angle Connector tool - Draw a right angle to connect two objects.

Drawing right angle connector lines

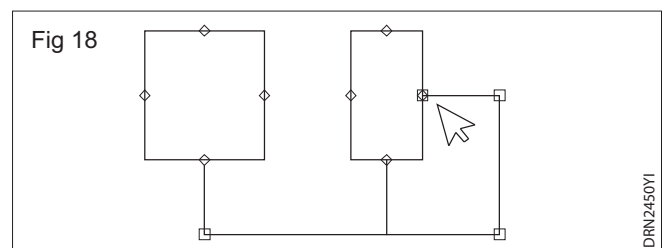


Right - angle connector tool

20 To draw a right - angled connector line, drag from an anchor point on the first object to an anchor point on the second object. (Fig 17)



21 To change the position of a connector line, select a line by using the **Shape tool** and drag the node to a new location. (Fig 18)



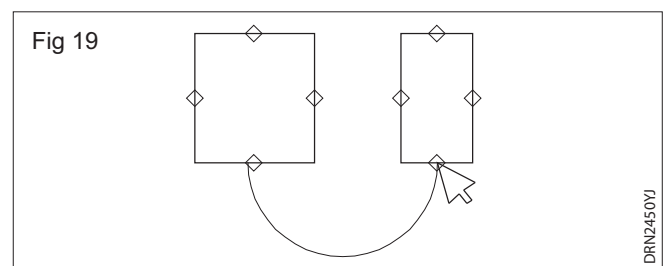
Right - Angle Round Connector tool - Draw a right angle with a rounded corner to connect two objects.

Drawing right angle round connector lines

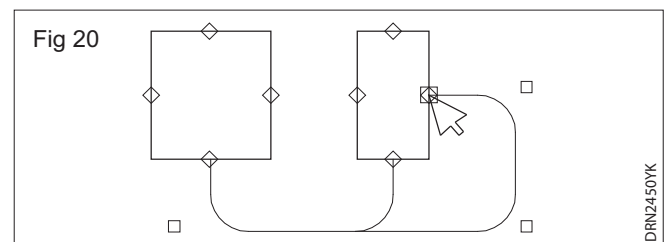


Right angle round tool

22 To draw an right - angled round connector line, drag from an anchor point on the first object to an anchor point on the second object. (Fig 19)



23 To change the position of a connector line, selected a line by using the **Shape tool** and drag the nodes to a new location. (Fig 20)



Edit Anchor tool - Modify the connector line anchor points of objects.

Modifying connector lines



Edit anchor tool

- 24 To add an anchor point to an object, double -click anywhere on an object.
- 25 To move the anchor point anywhere along the perimeter of an object, drag the anchor point to another point on the perimeter.
- 26 To delete an anchor point, click the anchor point that you want to delete, then click the delete anchor button on the property bar.

Delete anchor button  on the property bar

Blend tool - **Blend objects by creating a progression of intermediate objects and colors.**

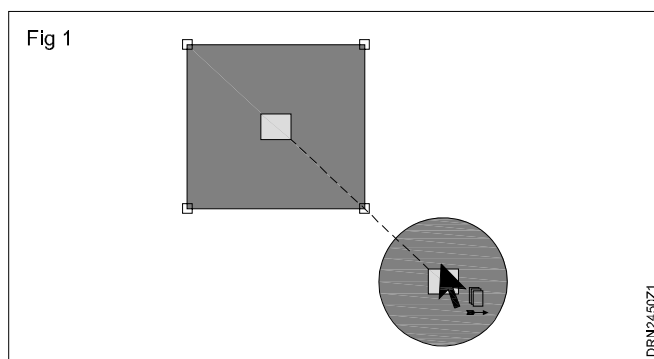
TASK 11: Identify the special effect tools

Blending objects

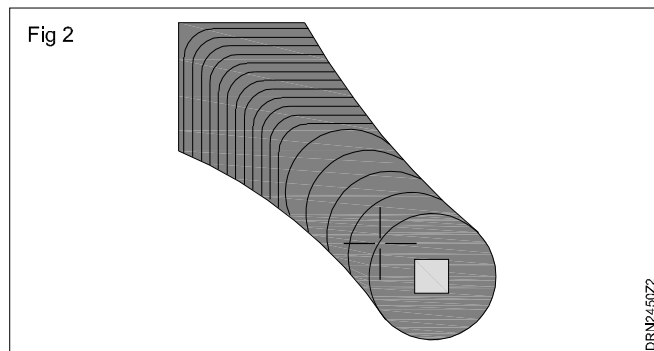


Blend tool

- 1 To blend two objects, drag from the first object to the second object, holding down Alt if you want to draw a free hand path for the blend. (Fig 1)



The first object is the start object of the blend, and the second object is the end object. The cursor changes when it is over an object that can be used in a blend. (Fig 2)



- 2 To adjust simultaneously the distance and color progression for the blend, move the slider.
- 3 To use the slider to adjust individually the distance and color progression for the blend, double-click the handles on the slider, and then move the handles.

You can also adjust blends by using the controls on the property bar.

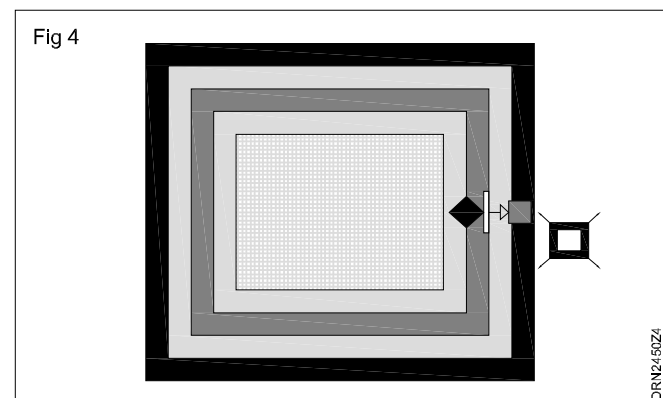
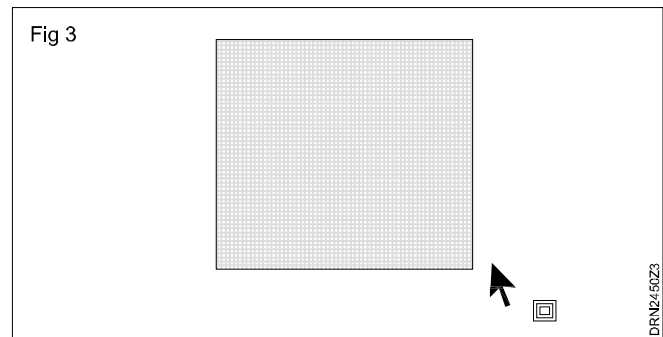
Contour tool - Apply a series of concentric shapes that radiate into or out of an object.

Contouring objects



Contour tool

- 4 To contour an object, click the object, and then drag the start handle towards its centre (to create an inside contour) or away from it (to create an outside contour)
- 5 To adjust the number of steps and the degree of offset in the contour, move the slider. (Fig 3 & 4)



- 6 To change the outline for the contour, drag a color from the color palette to the diamond-shaped handle.
- 7 To change the fill color for the contour, drag a color from the color palette to the square handle.

You can also adjust contour by using the controls on the property bar.

Distort tool - Transform object by applying Push and Pull, Zipper or Twister effects.

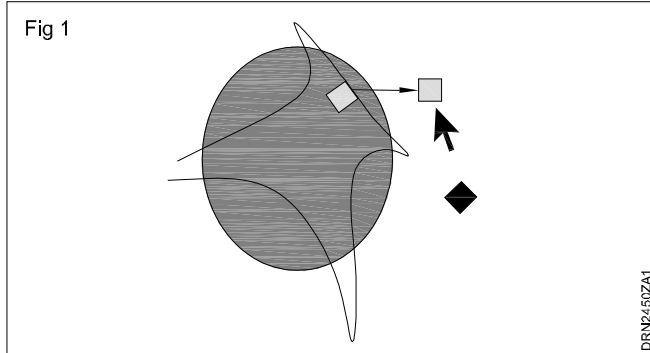
TASK 12: Create effects

Applying distortion effect

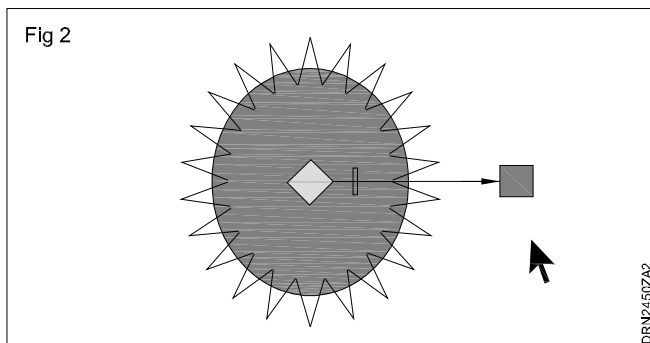


Distort tool

- 1 To apply a push effect, click the Push and pull distortion button on the property bar, and then drag the mouse until you are satisfied with the amount of push distortion. (Fig 1)



- 2 To apply a pull effect, click the push and pull distortion button  on the property bar, and then drag the mouse to the left until you are satisfied with amount of pull distortion.
- 3 To apply a Zipper effect, click the Zipper distortion button  on the property bar, and then drag the mouse to determine the amplitude of the zipper effect. (Fig 2)



- 4 To apply a Twister effect, click the Twister distortion button  on the property bar, and then drag the mouse in circles around the object. The closer you are to the object's border, the more dramatic the effect is. If you drag from the centre of the object, the Twister effect is more subtle.
- 5 To change the centre of distortion, drag the diamond-shaped position handle to a new location.
- 6 To adjust the number of points on a zipper distortion, move the slider.

You can also adjust distortion by using the controls on the property bar. (Fig 3)

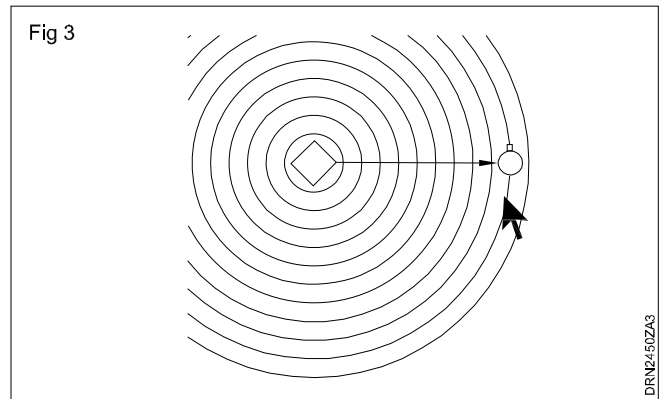
Drop shadow tool - Apply shadows behind or below objects.

Adding drop shadows



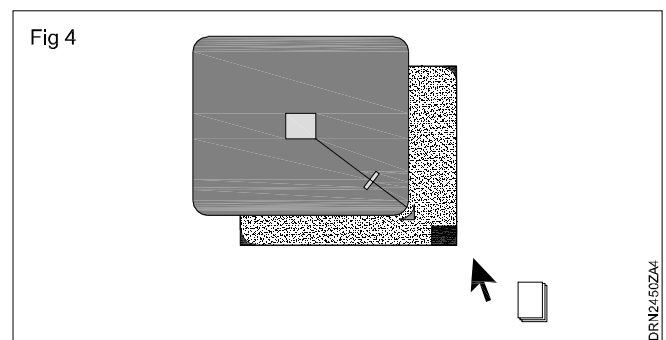
Drop shadow tool

Fig 3



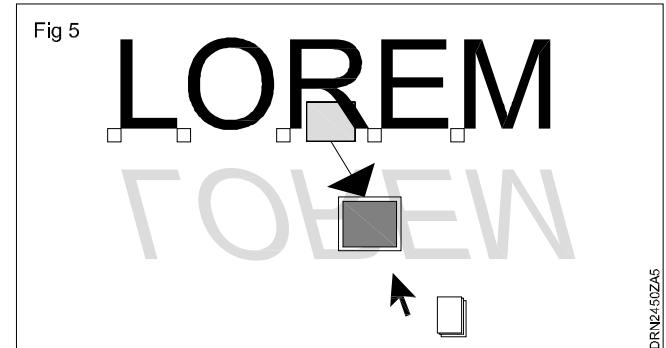
- 7 To add a drop shadow, click the object, and then drag the first object to where you want to place shadow. (Fig 4)

Fig 4



Drop shadow applied to an object. (Fig 5)

Fig 5



- 8 Drop shadow applied to text.
- 9 To change the perspective of the drop shadow, drag the start handle.
- 10 To change the direction of the drop shadow, drag the end handle.
- 11 To adjust the opacity of the drop shadow, move the slider.
- 12 To change the color of the drop shadow, drag a color from the color palette to the end handle.

you can also adjust drop, shadows by using the controls on the property bar.

TASK 13: Create envelopes

Envelope tool - Change the shape of an object by applying and dragging the nodes of an envelope.

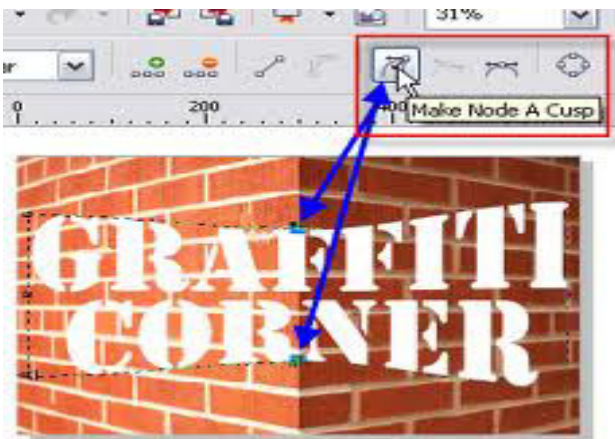
Applying envelopes



Envelope tool

- 1 To apply an envelope to a selected object, choose one of the following modes from the property bar, and then click the object:
- 2 Straight line mode - creates envelopes based on straight lines, adding perspective to objects.
- 3 Single-arc mode - creates envelopes with an arc shape on one side, giving objects a concave or convex appearance.
- 4 Double-arc mode - creates envelope with an S shape on one or more sides.
- 5 Unconstrained mode creates free form envelopes, which let you change the properties of the nodes, and add and delete the nodes.
- 6 To shape the envelope, drag a node (Fig 1)

Fig 1



You can also adjust envelopes by using the controls on the property bar.

Extrud tool - Apply 3D effect to object to create the illusion of depth.

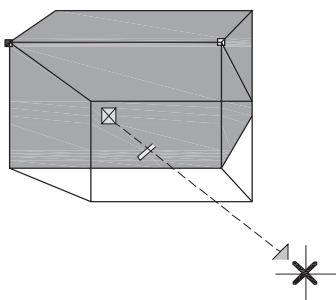
Creating extrusion



Extrude tool

- 7 To create an extrusion, drag the object in the direction in which you want to project the three-dimensional extrusion. (Fig 2)

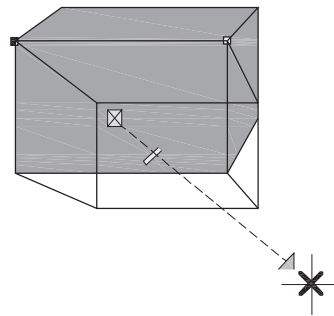
Fig 2



DRN2450ZB2

- 8 To adjust the depth of the extrusion, move the slider. (Fig 3)

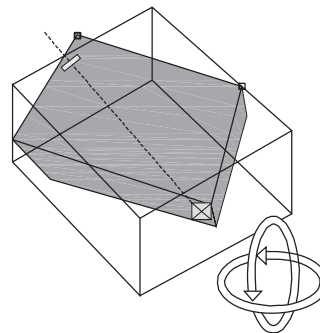
Fig 3



DRN2450ZB3

- 9 To change the direction of the extrusion, drag the X-shaped perspective handle.
- 10 To rotate an extrusion, double-click it to display its rotation handles, and then drag any rotation handle. (Fig 4)

Fig 4



DRN2450ZB4

You can also adjust extrusions by using the controls on the property bar.

Transparency tool - Partially reveal image areas underneath the object.

Applying transparencies

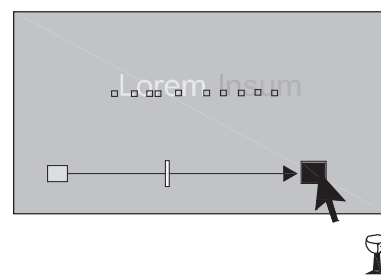


Transparency tool

- 11 To apply a transparency to an object, select the object with the transparency tool, and then drag across the object. (Fig 5)

The appearance of the transparency varies depending on where you first click, the direction in which you drag, and the distance that you drag.

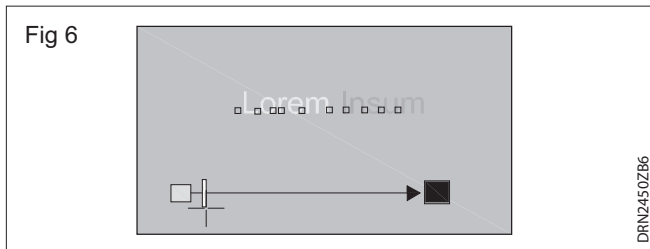
Fig 5



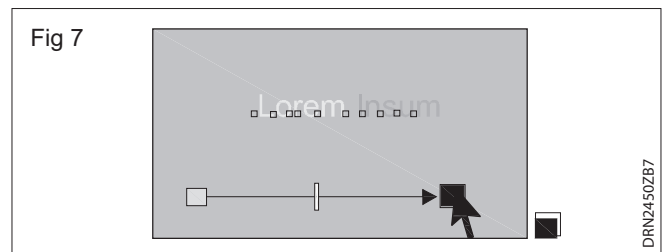
DRN2450ZB5

- 12 To set where you want the transparency to start, drag the start handle. (The start handle is white by default)
- 13 To set where you want the transparency to end, drag the end handle. (The end handle is black by default)

- 14 To adjust the progression of the transparency, move the slider. (Fig 6)



- 15 To change the intensity of the transparency, drag a color from the color palette to the end handle. The lighter the color, the more opaque the resulting transparency. (Fig 7)



You can also adjust transparencies by using the controls on the property bar.

TASK 14: Use color tools

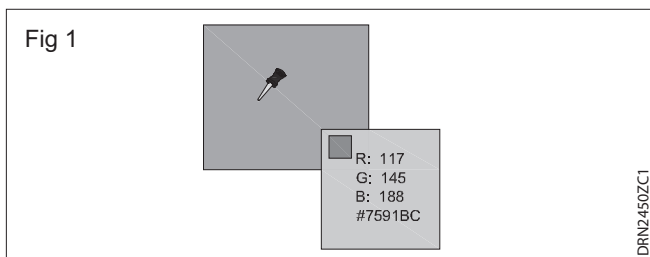
Color Eyedropper tool - Sample colors, and apply them to objects.

Sampling and applying color

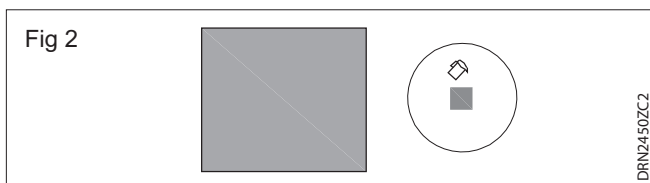


Color eyedropper tool

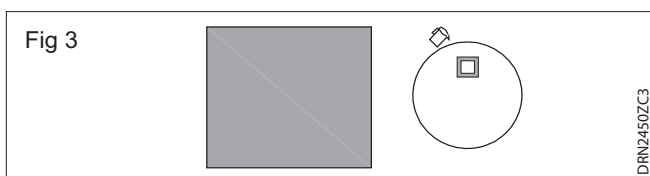
- 1 To sample a color from an object, click the color eyedropper tool  from the toolbox, and click **Select from Desktop** on the property bar if required.
- 2 Click the color that you want to sample. (Fig 1)



- 3 To fill an object with a sampled color, wait for the color eyedropper tool  to switch to **Apply color** mode, then hover over an object until a solid color swatch appears, and click to apply the color. (Fig 2)



- 4 To outline an object with a sampled color, you can hover over the object's outline until the outline swatch appears, and click the object's outline. (Fig 3)



Outline Pen (F12) - Set outline properties such as line thickness, corner shape, and arrow type. (Fig 4)

Outline color (Shift + F12) - Choose the outline color by using color viewers and color palettes. (Fig 5)

Fig 4

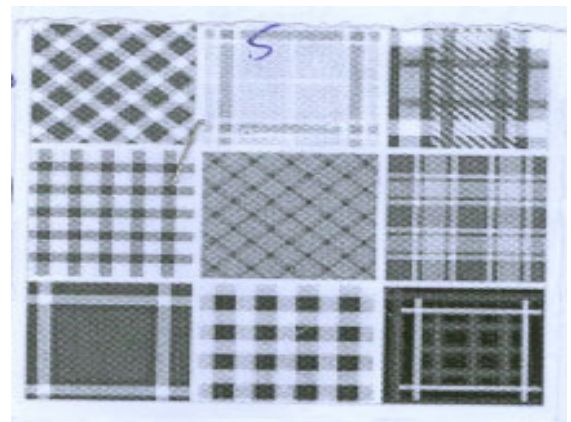
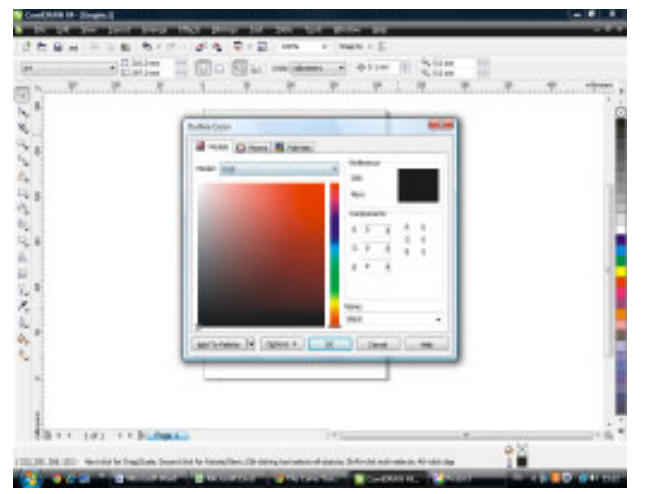


Fig 5



Uniform Fill (Shift + F11) - Choose a solid fill color for an object by using color palettes, color viewers, color harmonies, or color blends. (Fig 6)

Fountain Fill (F11) - Fill an object with a gradient of color or shades. (Fig 7)

Pattern Fill - Apply a preset pattern fill to an object or create a custom pattern fill. (Fig 8)

Texture Fill - Apply preset texture fills to objects to create the illusion of a variety of texture, such as water, clouds and stone. (Fig 9)

Fig 6

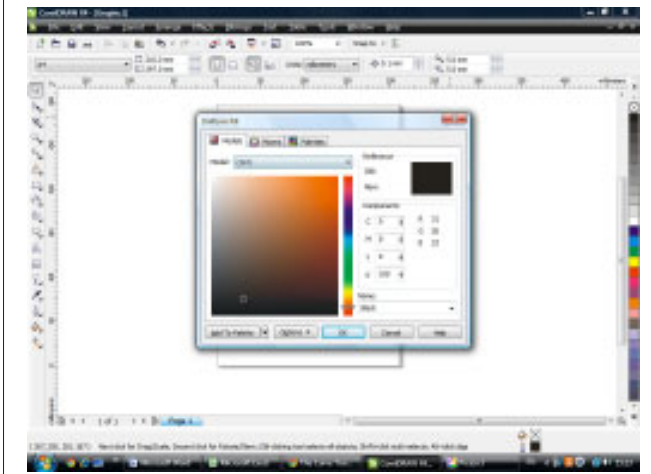


Fig 9

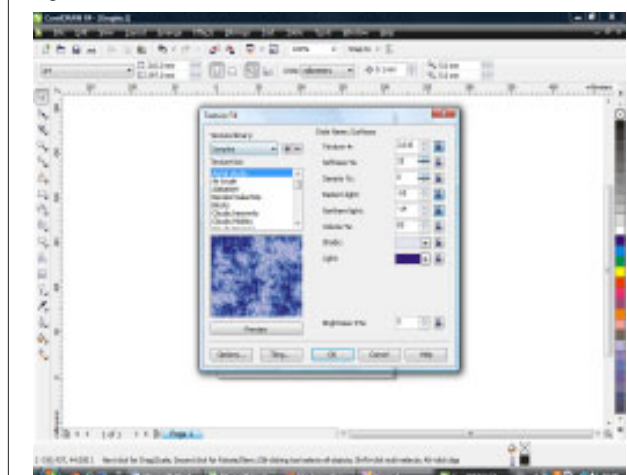


Fig 7

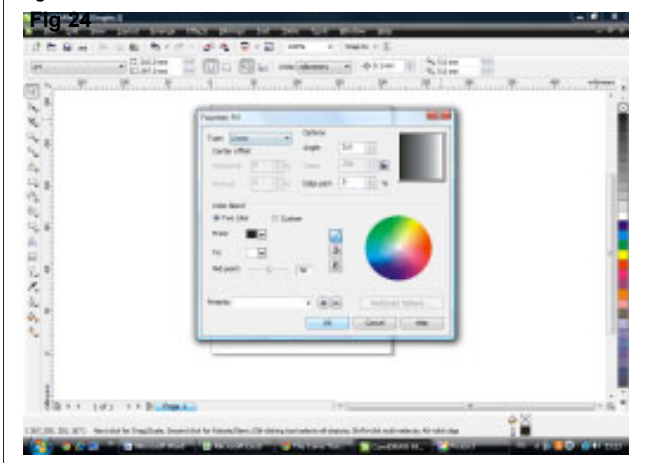
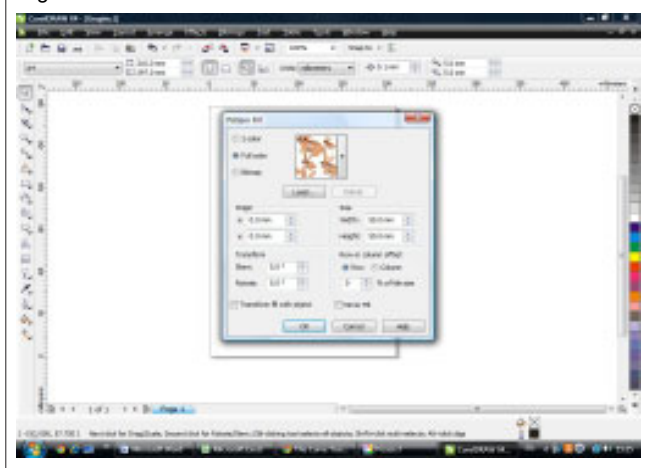
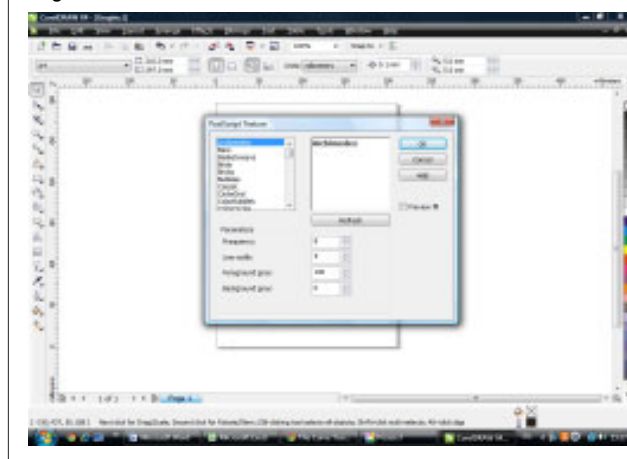


Fig 8



PostScript Fill - Apply an intricate PostScript texture fill to an object. (Fig 10)

Fig 10



TASK 15: Use interactive tool

Interactive Fill tool (G) - Create a fill dynamically by using markers in the drawing window and property bar to change the angle, midpoint and color.

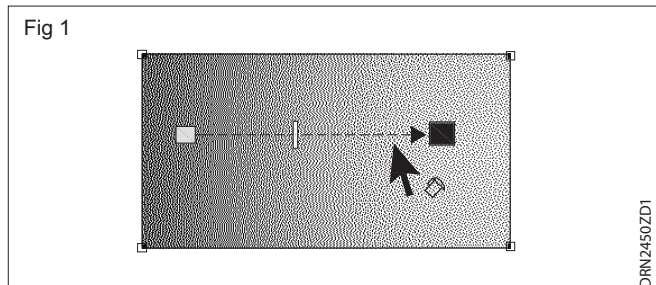
Applying fills interactively



Interactive fill tool

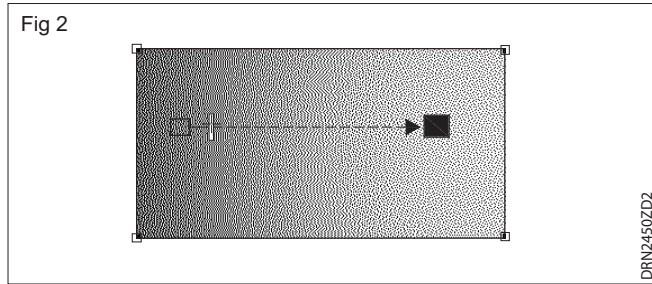
- 1 To apply an interactive fill to an object, click the object, and then drag. (Fig 1)

Fig 1

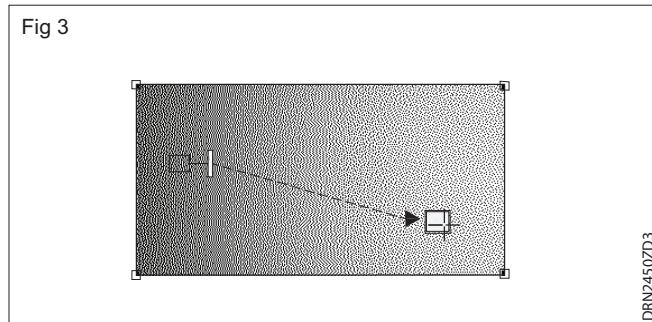


DRN2450ZD1

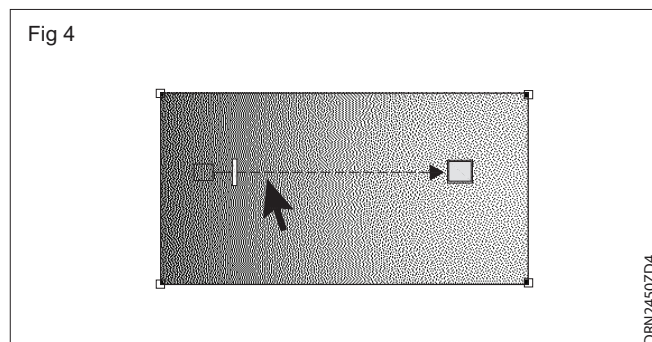
- 2 To adjust the progression of a fountain fill, drag the slider. (Fig 2)



- 3 To adjust the angle of a fountain fill, drag the end point. (Fig 3)

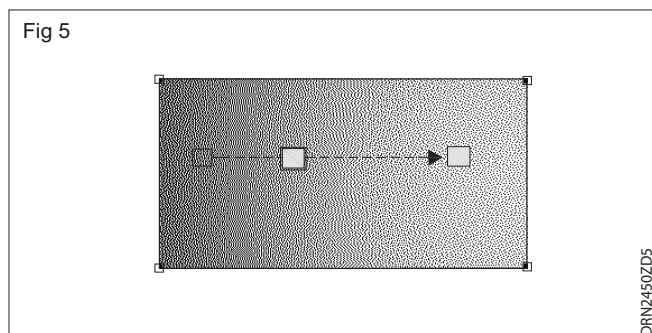


- 4 To change the intermediate color of a fountain fill, drag a color from the color palette to the fill path. (Fig 4)



- 5 To change the start or end color of a fountain fill, drag a color from the color palette to the star or end handle

You can also adjust fountain fills by using the controls on the property bar. (Fig 5)



You can also use the property bar to apply other fills that you can adjust interactively, such as pattern fill and texture fills.

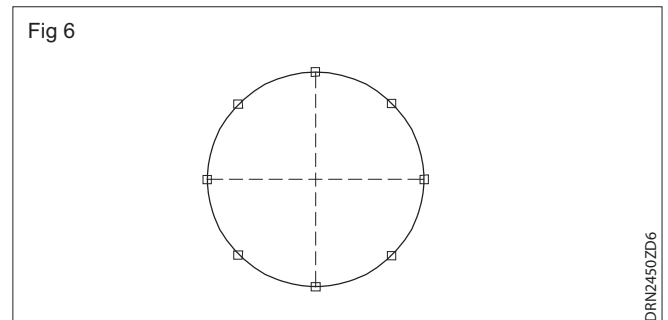
Mesh fill tool (M) - Fill an object by blending multiple colors or shades arranged over a mesh grid.

More info

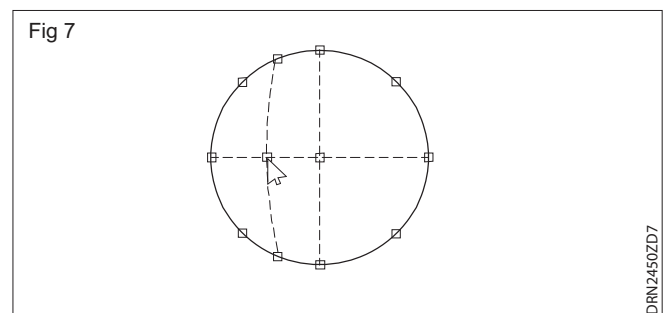
Applying mesh fills



- 1 To add the mesh grid, click the object. (Fig 6)

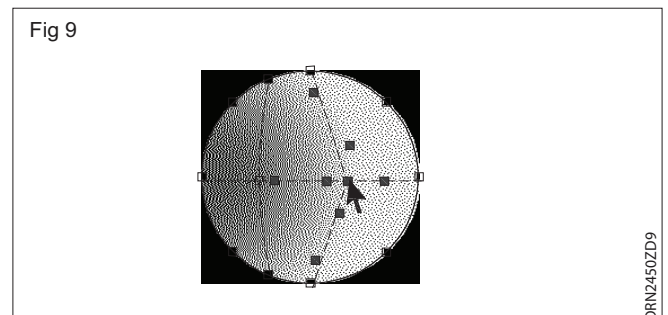
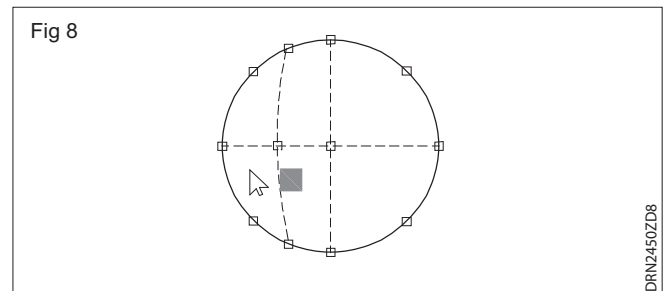


- 2 To add rows or columns to the mesh grid, type values in the **Grid size boxes** on the property bar or double click in the object. (Fig 7)



- 3 To change the color of a grid, drag a color from the color palette to the grid.

- 4 To adjust the nodes in the grid, click the shape tool in the toolbox and drag nodes across the object. (Figs 8 & 9)



TASK 16: Create fabric design used coreldraw

1 Shapes given in corel draw for making swatch (Fig 1)

Fig 1

- 2 Select bezier tool and if you are good with free hand drawing you can use free hand tool.
- 3 Draw basic layout for fabric.
- 4 Choose the design with help of interactive fill tool. (fabric design Fig 2)

Fig 2

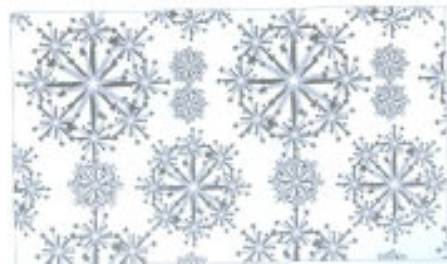


- 5 Close the design.

Convert the shape into fabric design

- 1 Choose the shape from above mentioned fabric design (Fig 2)
- 2 Select shape tool and with the help of node and edit the basic pattern according to your choice (fabric design) (Fig 3)

Fig 3



- 3 Change the color and texture.

Design the fabric swatch

- 1 Fill the details with the help of bezier tool.
- 2 Select the pattern fill colours and color the swatch.
- 3 Changes according to your choice the colour and fabric texture.
- 4 Practice different types of color, pattern and texture.
- 5 Save the file. (Fig 3)

Same procedure /steps is to be followed for practice other Fabric design as shown in Figs 4,5 & 6.

Fig 4

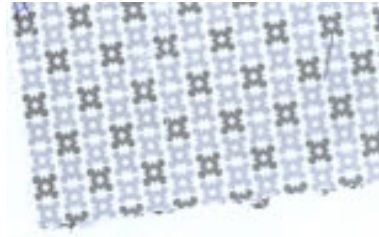


Fig 5

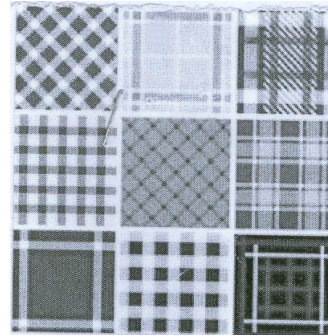


Fig 6



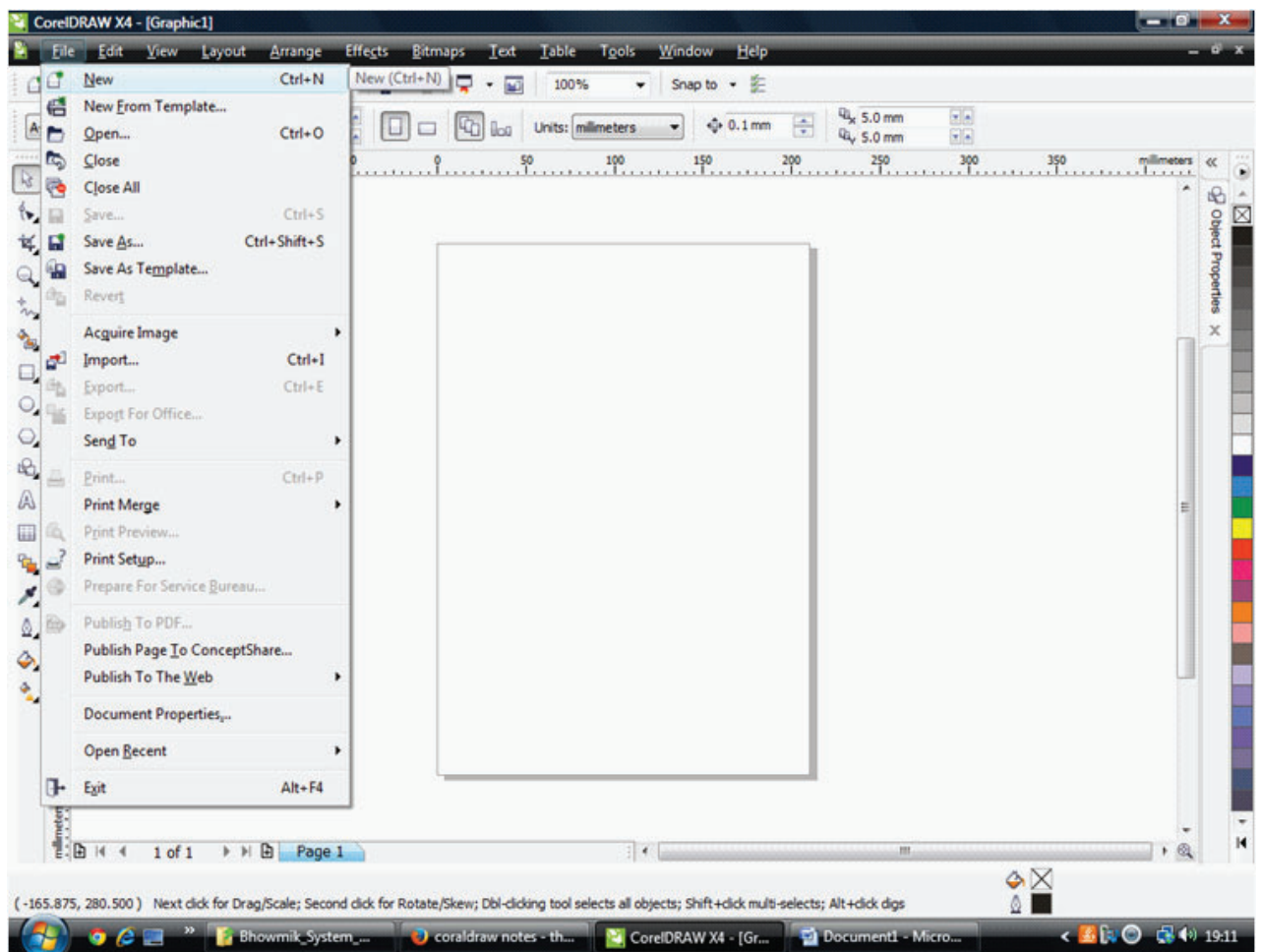
Create logo (Fig 1)

Fig 1



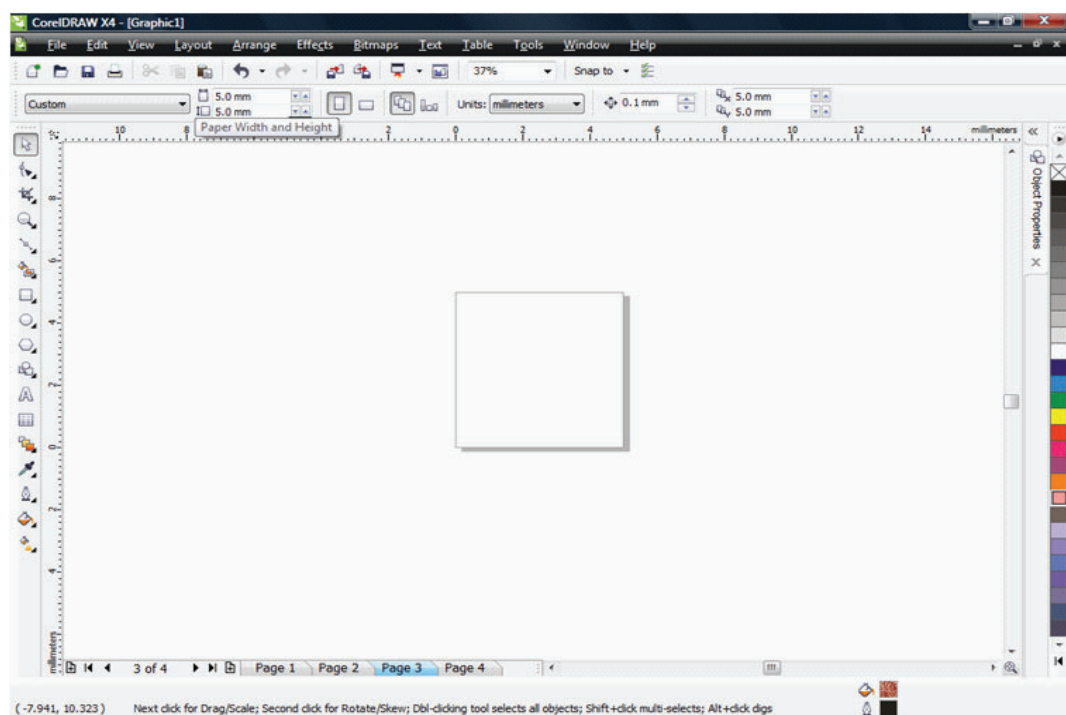
Click File > New to open new page. (Fig 2)

Fig 2



Set 5 inches in paper width and height box. (Fig 3)

Fig 3



Drawing tools and different types of lines

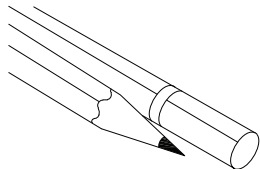
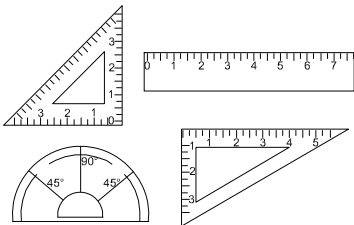
Objectives: At the end of this exercise you shall be able to

- identify the tools for drawing
- practice the basic lines & practice
- identify the direction of line draw in the given column
- draw horizontal, vertical lines.
- draw a lines on paper with pencil
- draw a vertical line with scale, pencil & free hand
- draw a diagonal line with scale, pencil & free hand
- draw a curve lines.

The instructor shall arrange of the necessary wall charts/tools/equipment etc., from other sections/ department and also arrange for the required materials to enable the trainees to practice the task effective.

TASK 1: Identify the tools for Drawing & Painting

Identify the tools for Drawing & Painting tools and practice the same.

Types of Tool	
1 Pencil 	
2 Eraser 	
3 Sharpener 	
4 Ruler 	
5 Poster paint 	

Types of Tool	
6 Types of brushes 	
7 Palette 	
8 Table 	

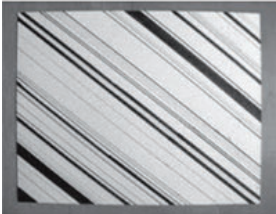
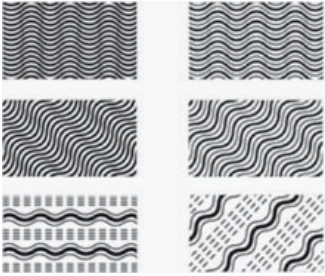
TASK 2: Identify the basic lines & practices

1 	
2 	

TASK 3: Identify the direction of line & draw in the given column

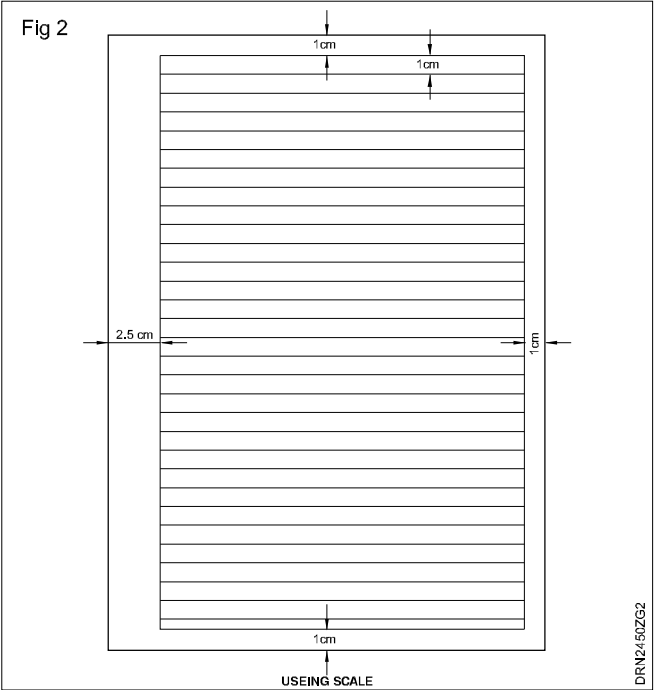
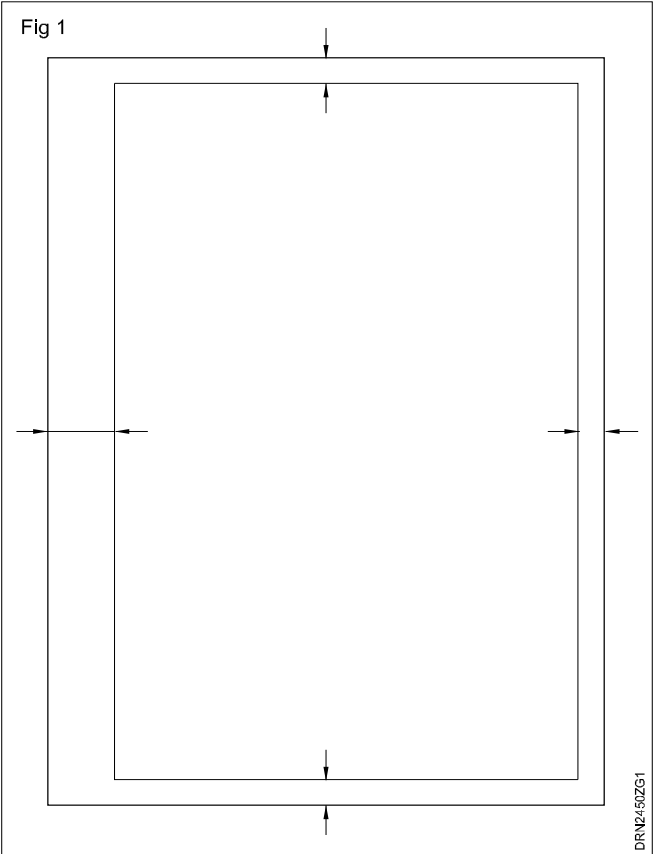
1 Direction of line

Horizontal line 	
--	--

Vertical line		
Diagonal line		
Curve line		

TASK 4: Draw a horizontal lines with B, 2B, 4B, 6B pencils

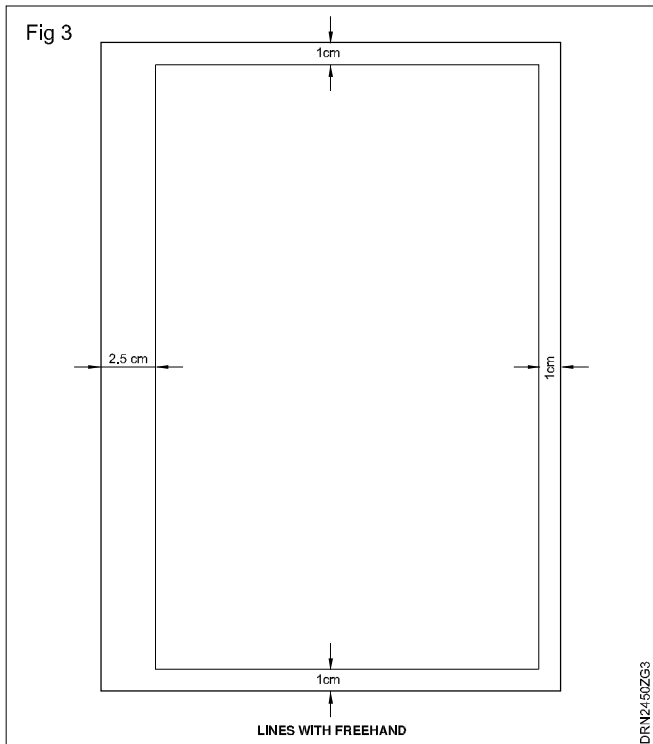
- 1 Draw 2.5cm border on one side & on 3 sides on the A4 sheet using 'B' pencil as shown in Fig 1.
- 2 Draw thin lines horizontally in the box with 1cm distance in between using scale as shown in Fig 2.



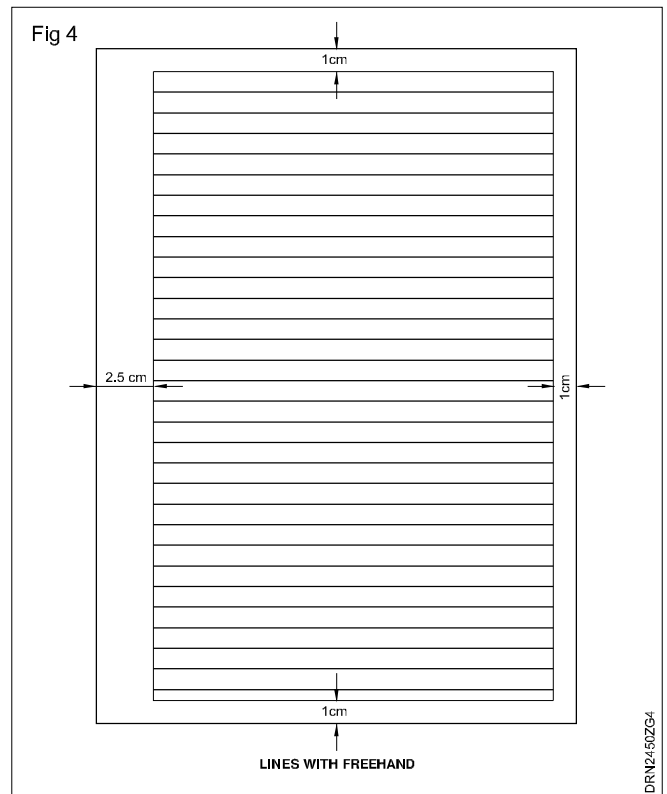
Give less pressure on the pencil.

- 3 Take another sheet to draw thick lines using the same 'B' pencil.

- 4 Draw border as shown in 1st step of task-1- as show in (Fig 3)



- 5 Draw thick horizontal lines in the box with 1 cm distance in between as show in (Fig 4)

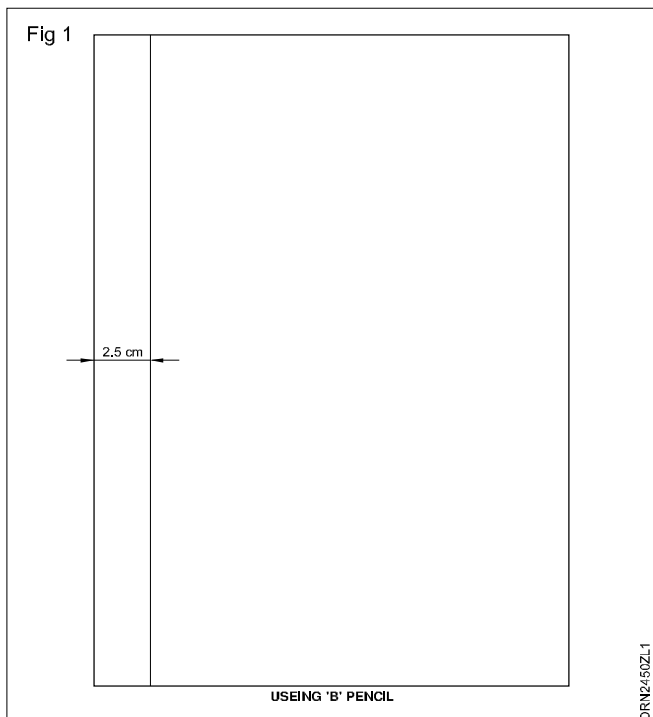


Give more pressure on the pencil.

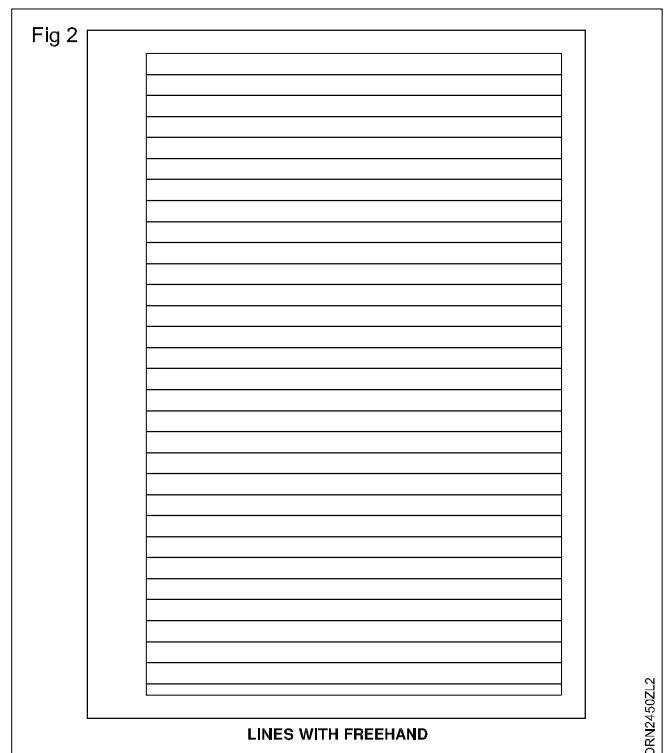
TASK 5: Draw a lines on paper with pencils

Lines with freehand

- 1 Draw 2.5cm border on one side using scale as shown in Fig 1.

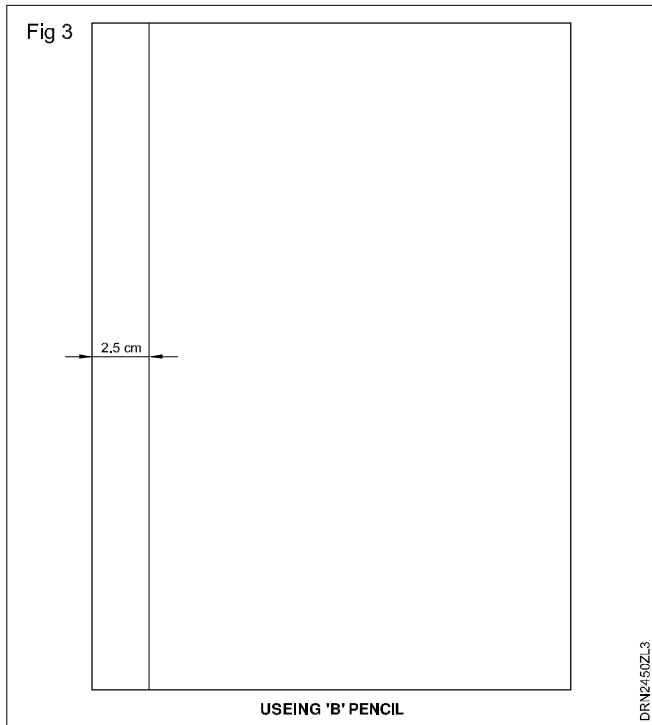


- 2 Draw thin lines starting from the border till the end of the sheet with approximatly 1 cm distance lines as shown in Fig 2.



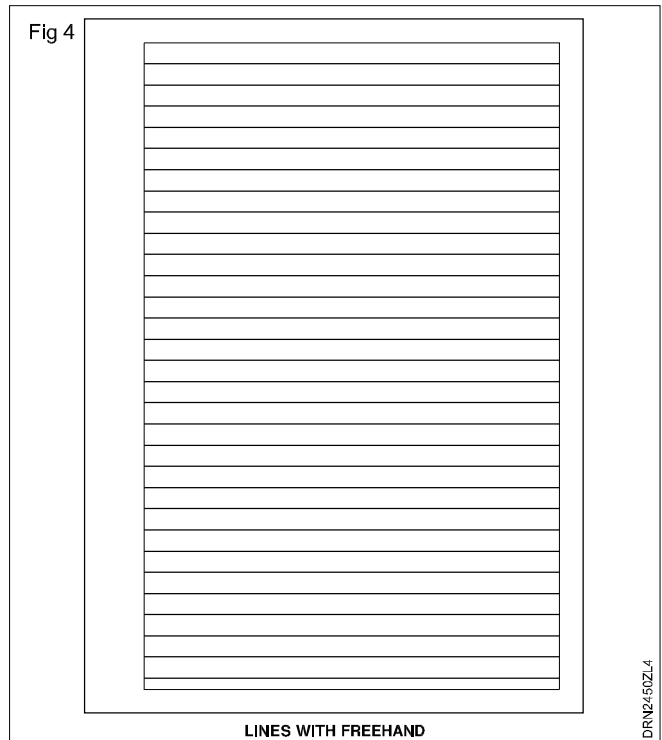
Give less pressure on the pencil.

- 3 Draw border on the another A4 sheet following the procedure 2-set 1 as shown in the Fig 3.



- 4 Draw thick horizontally starting from the border till the end of the sheet as shown in Fig 4.

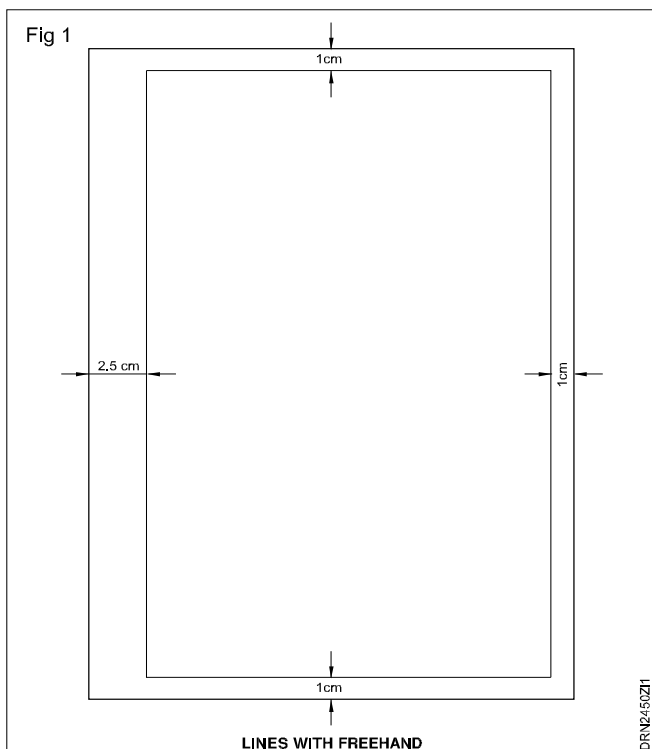
Give more pressure on the pencil.



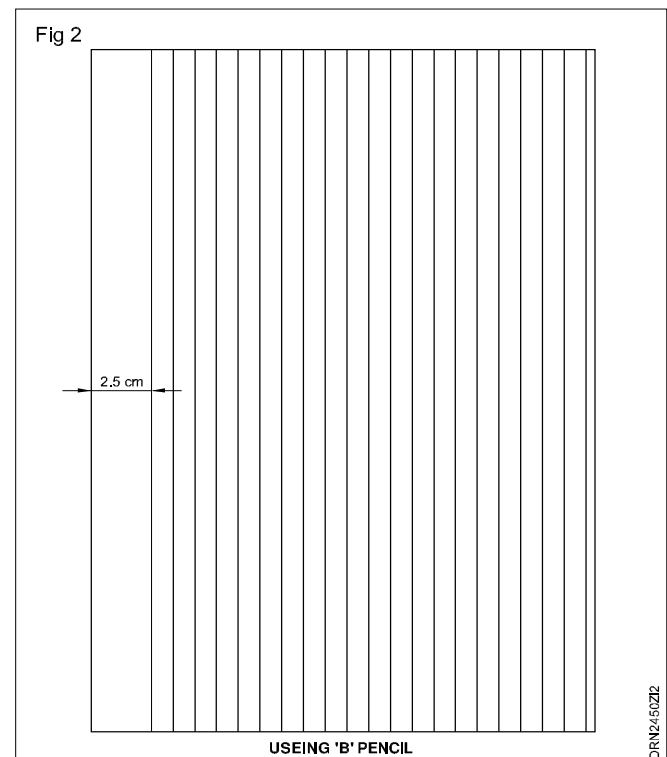
Follow the above mentioned 1 & 2 for thick & thin with 2B,4B,6B pencils.

TASK 6: Draw vertical line with scale, B pencil & free hand

- 1 Draw 2.5 cm border one side & 1cm on the 3 sides in A4 sheet using 'B' pencil as shown in Fig 1.



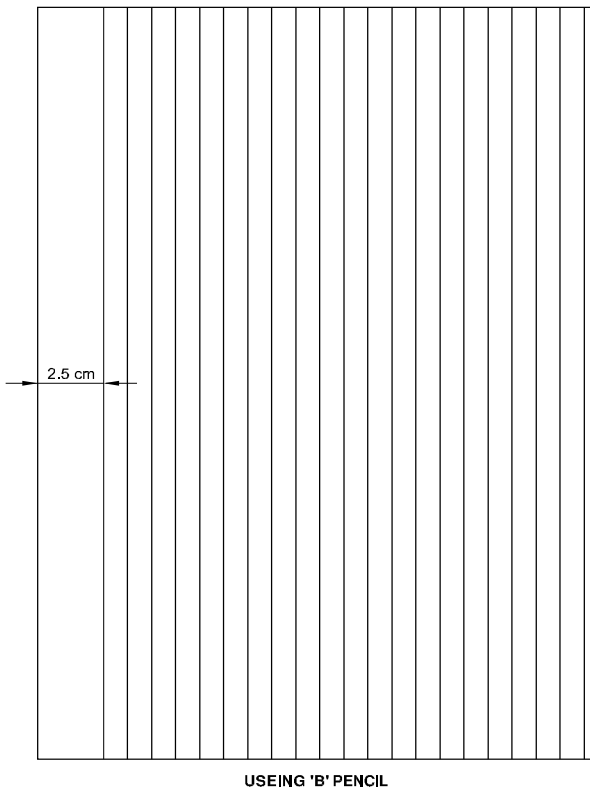
- 2 Draw thin vertical lines one end of border to the other end the border leaving 1 cm in between is shown in the Fig 2.



Give less pressure pencil.

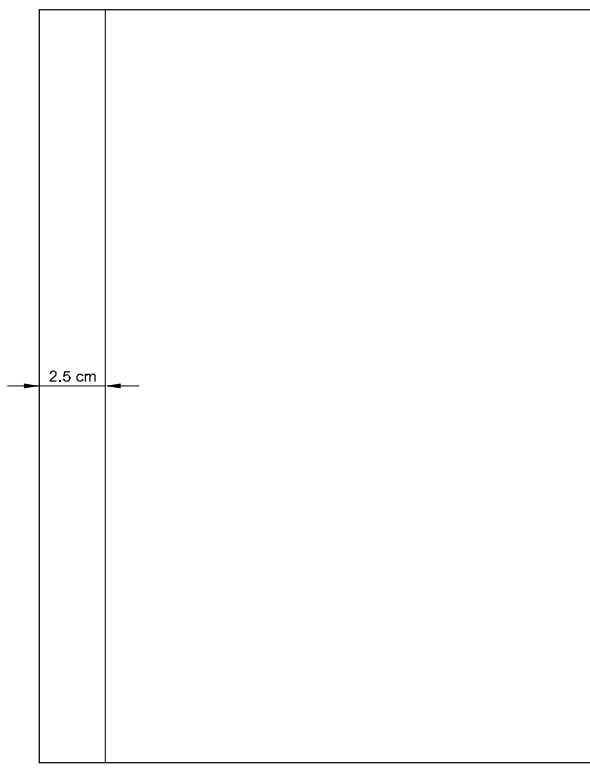
- 3 Draw 2.5 cm border on one place and 1 cm on 3 sides in a A4 sheet using 'B' pencil and draw thick vertical lines as shown in Figs 2 & 3 leaving 1 cm in between.

Fig 3



- 4 Draw 2.5cm border on one side by using scale as shown in Fig 4.

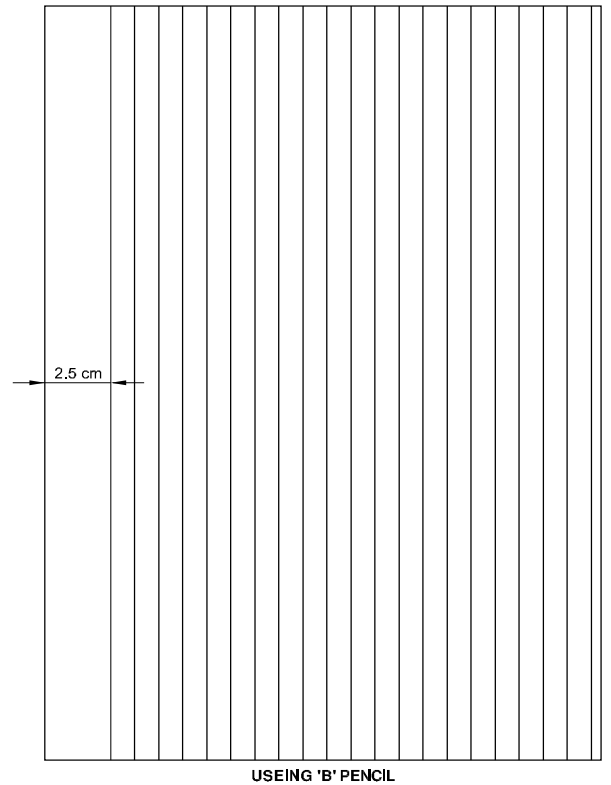
Fig 4



- 5 Draw thin vertical lines from one end of the sheet till the end leaving 1cm between as shown in Fig 5.

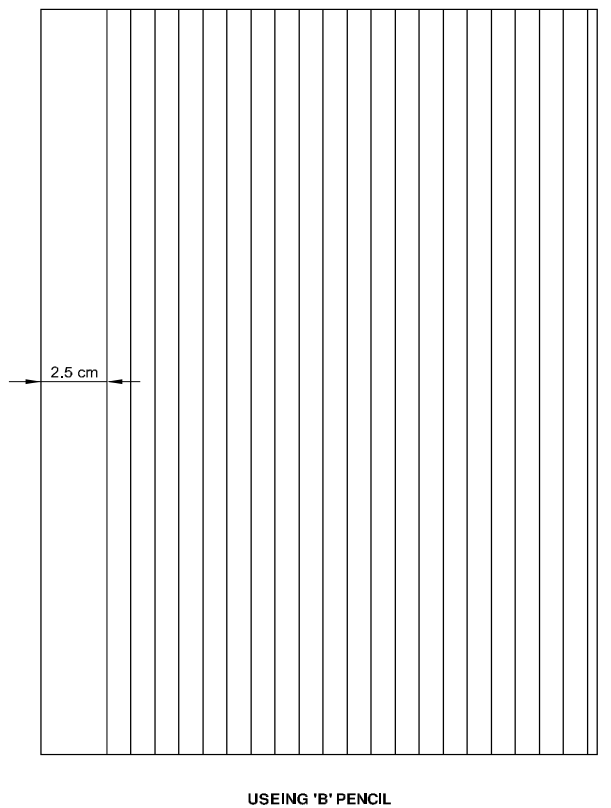
Give less pressure on the pencil.

Fig 5



- 6 Draw 2.5cm border on one side using scale & draw thick vertical lines from one end to another leaving 1cm in between as shown in Fig 6.

Fig 6

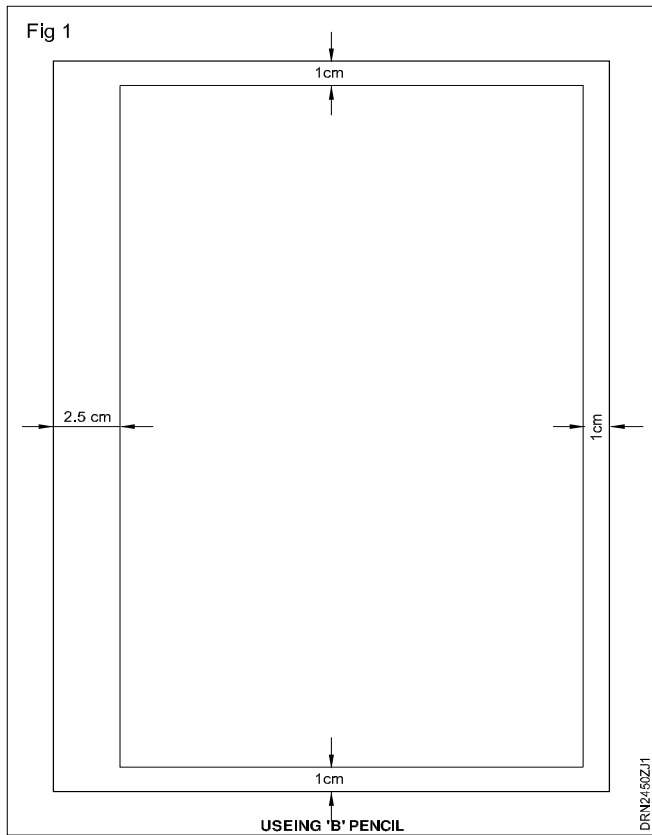


Follow the same procedure in task 2 to do thin & thick using 2B,4B & 6B pencils.

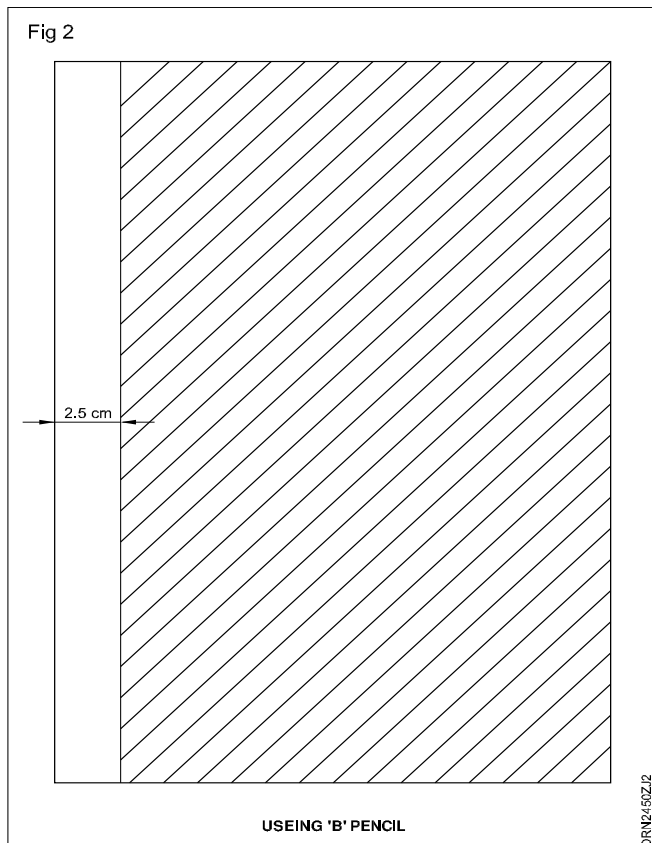
TASK 7: Draw a diagonal lines with B,2B,4B,6B pencils

Draw diagonal lines with scale, 'B' pencil & free hand.

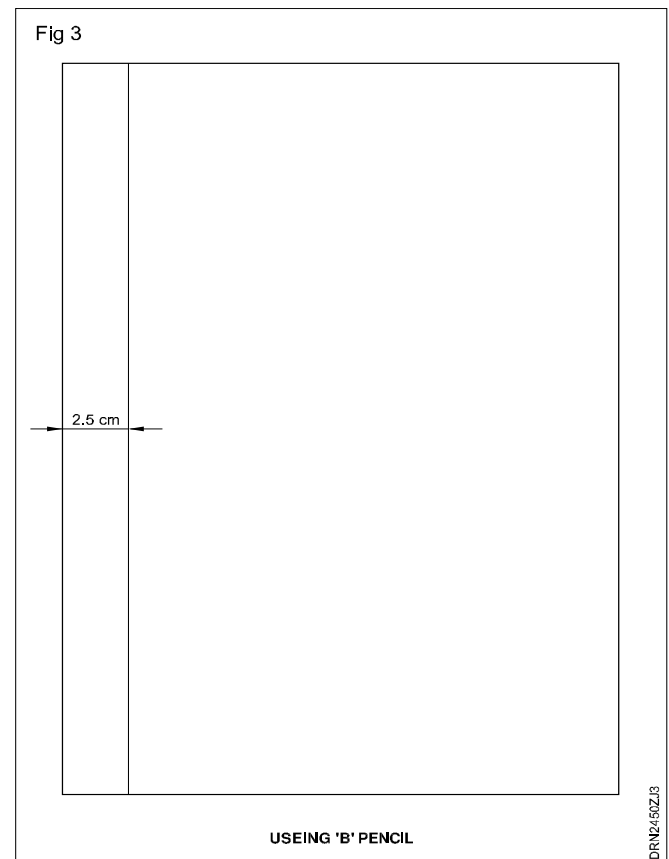
- 1 Draw 2.5cm on one lines & 1cm on 3 sides using scale & 'B' on an A4 sheet as shown in Fig 1.



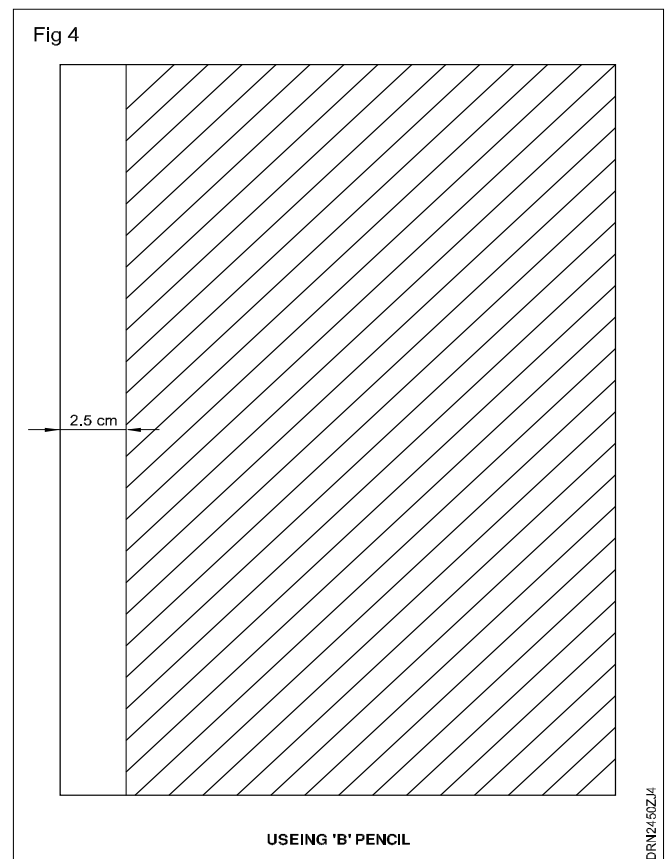
- 2 Draw thin diagonal lines from left. Top corner till right bottom corner leaving 1cm in distance as shown in Fig 2.



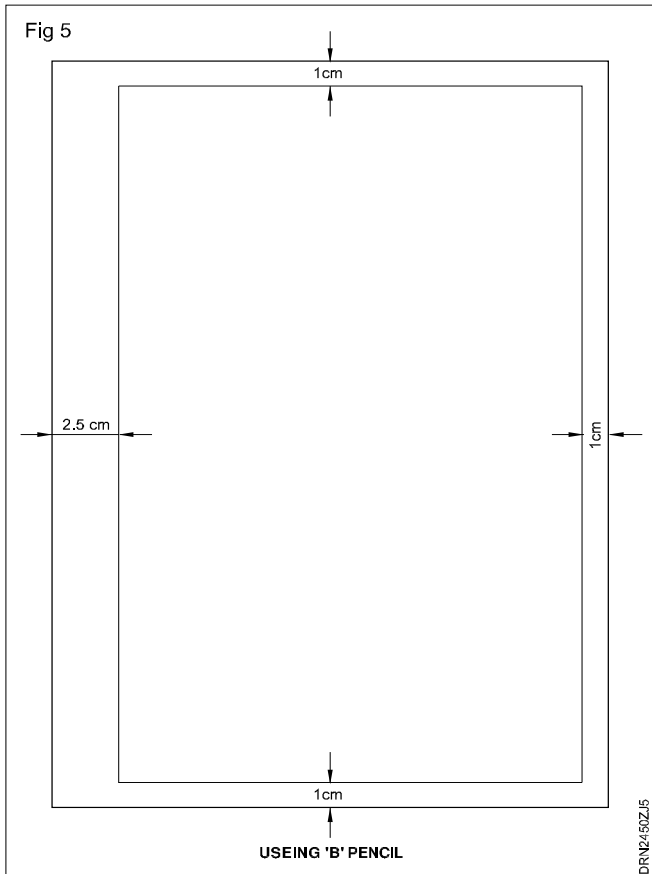
- 3 Draw 2.5cm on one side 1cm on 3 sides of A4 sheet using scale as shown in Fig 3.



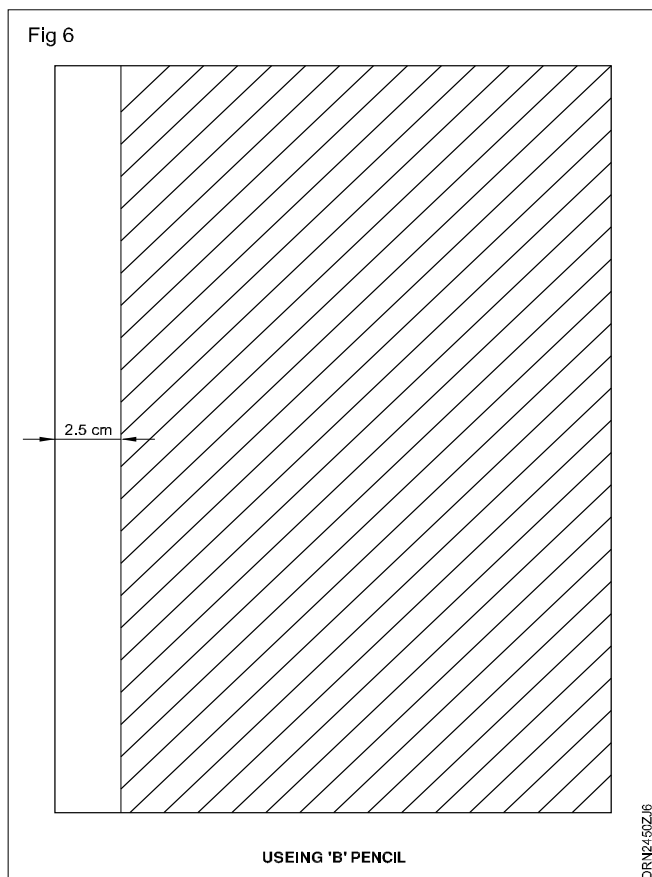
- 4 Draw thick diagonal lines from top left corner till right bottom corner leaving 1cm distance in between as shown in Fig 4.



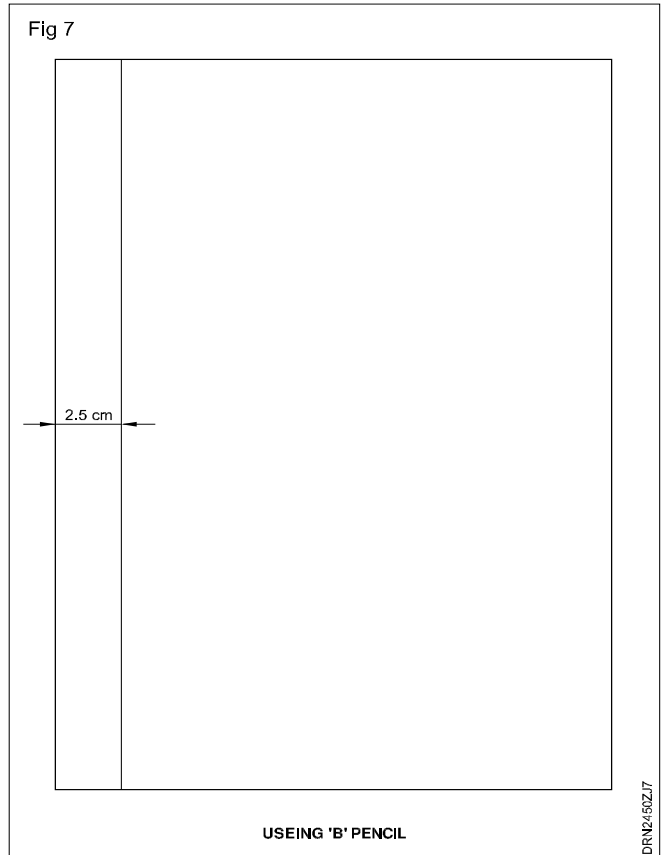
- 5 Draw 2.5cm border on one side using scale on A4 sheet as shown in Fig 5.



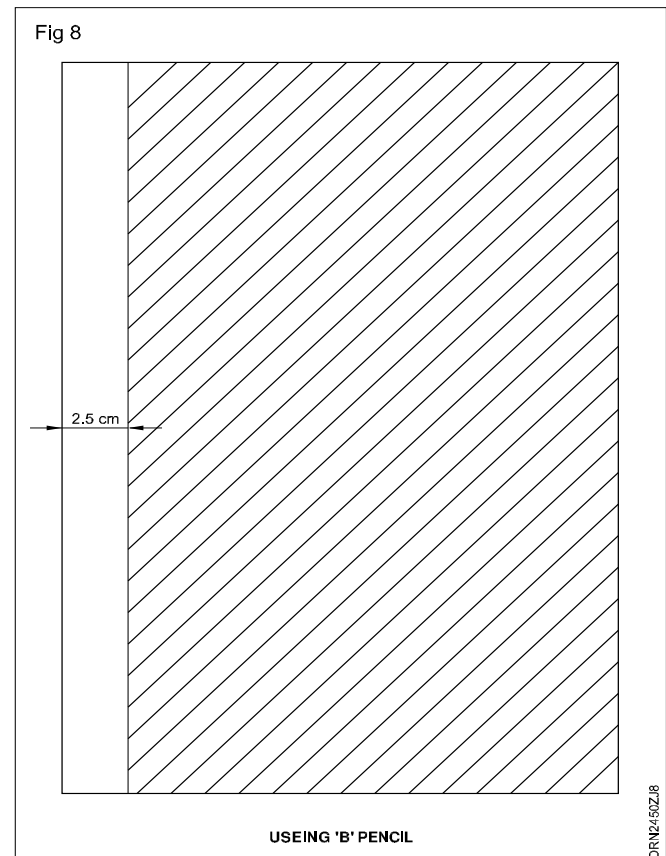
- 6 Draw thin diagonal lines from top left corner till right bottom corner leaving 1cm in distance as shown in Fig 6.



- 7 Draw 2.5cm border on one using scale as shown in Fig 7.



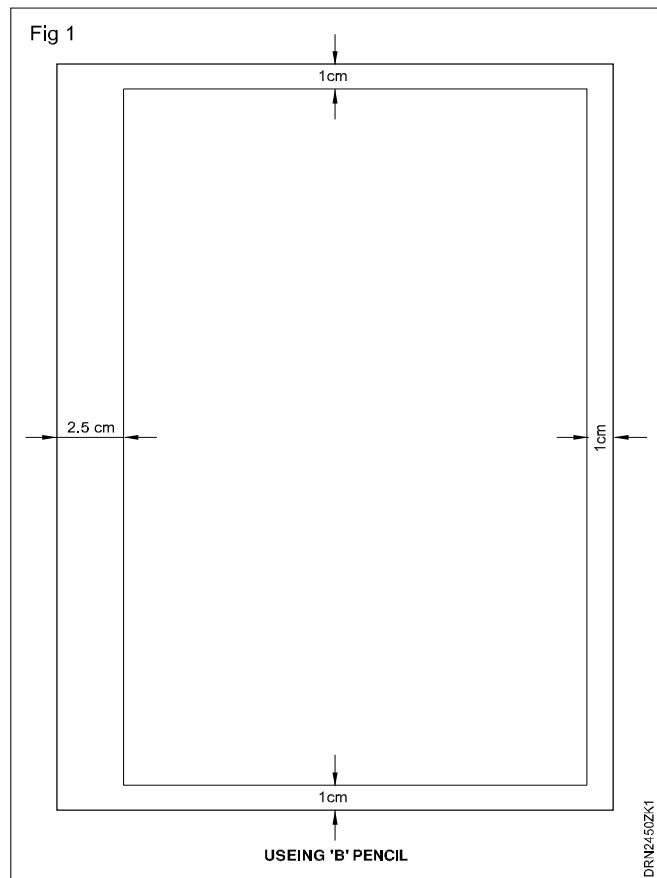
- 8 Draw thick diagonal lines from top left corner till right bottom corner leaving 1cm in distance as shown in Fig 8.



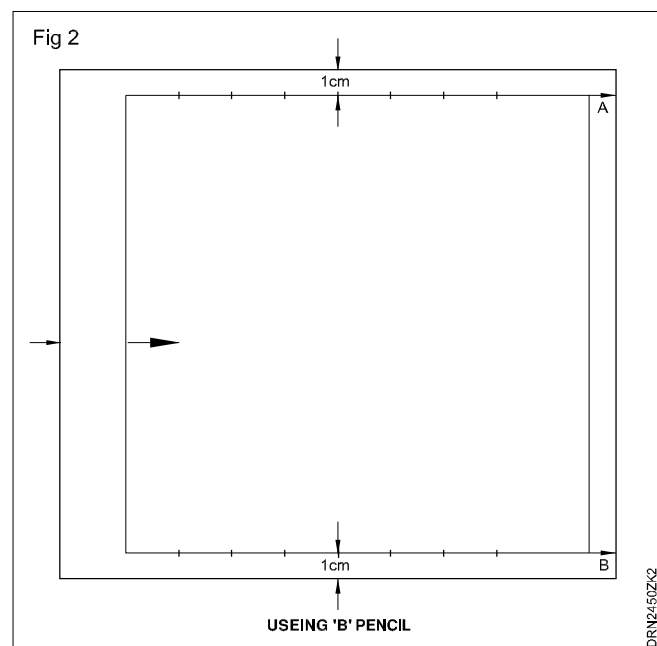
Follow the same procedures of task 3 to do thin & thick lines using 2B, 4B, & 6B pencils.

TASK 8: Draw curve lines with B,2B,4B,6B

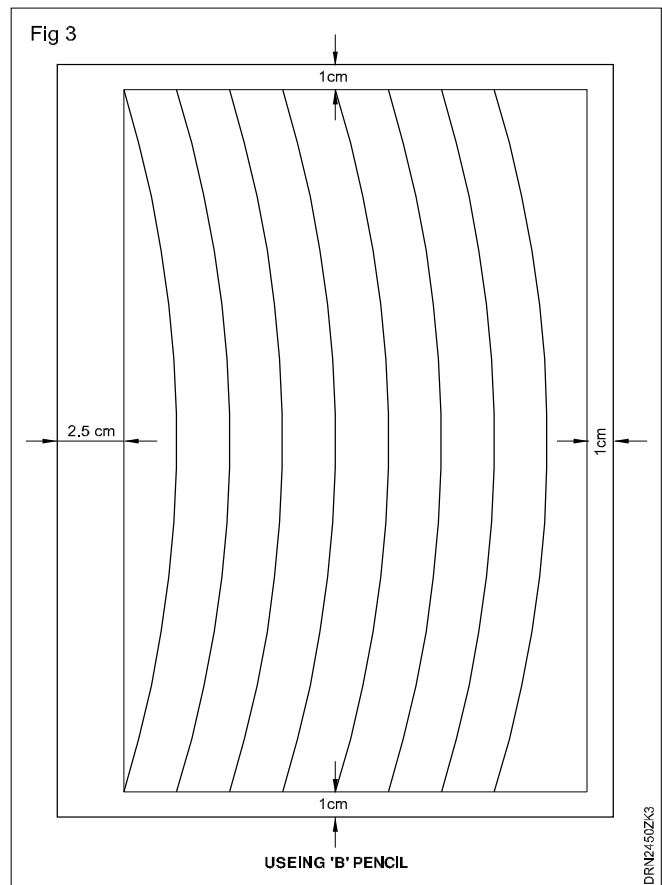
- 1 Draw curve lines with scale & 'B' pencil.
- 2 Draw 2.5 cm on one side & 1 cm on 3 sides using scale on A4 sheet as shown in Fig 1.



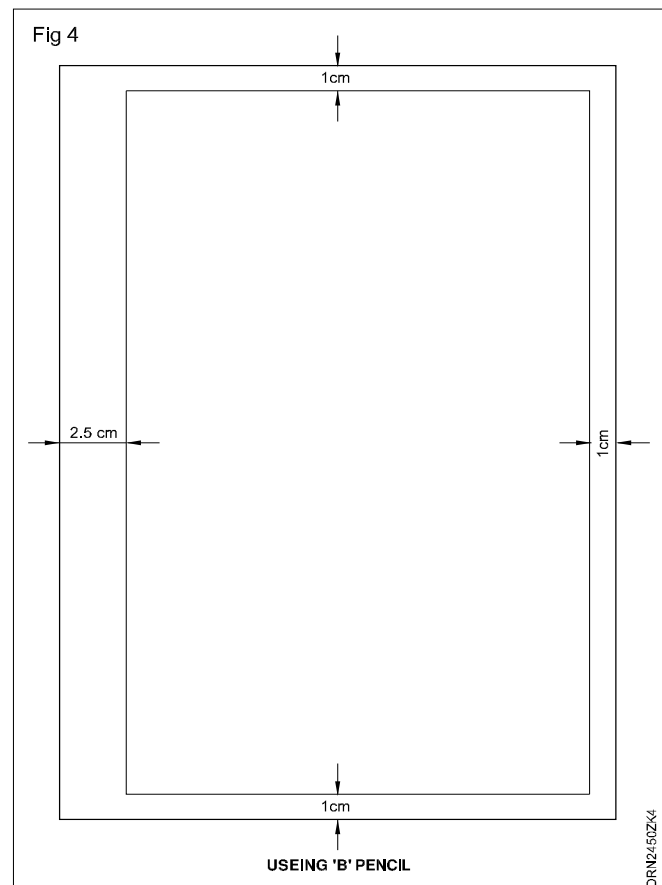
- 3 Mark 1cm distance line on top & bottom line (A&B).
- 4 Fold the sheet into two & mark center point at (c) for 2cm as show in the Fig 2.



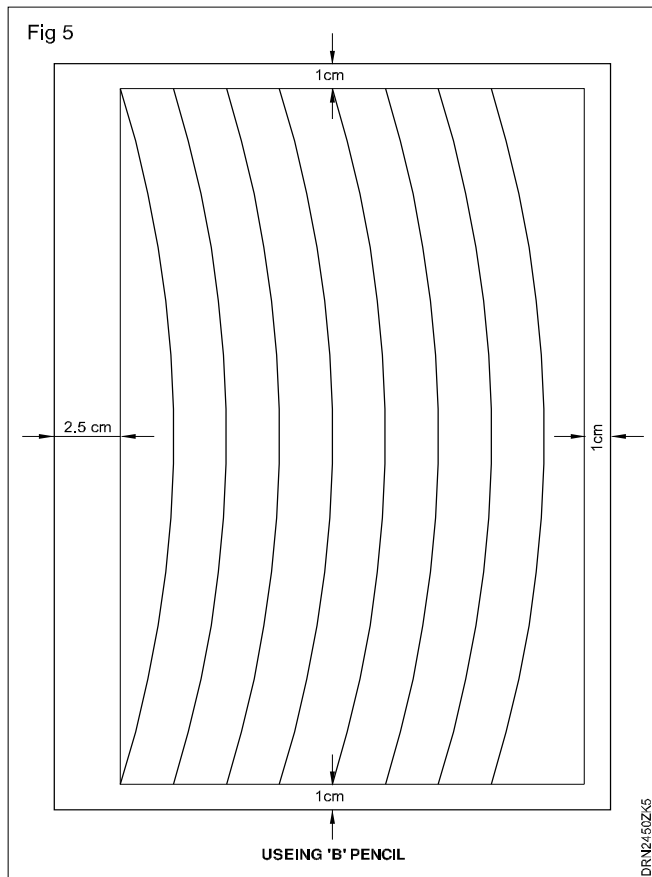
- 5 Join the marked dots curve using french curve to get curve lines giving less pressure on pencil. as shown in Fig 3.



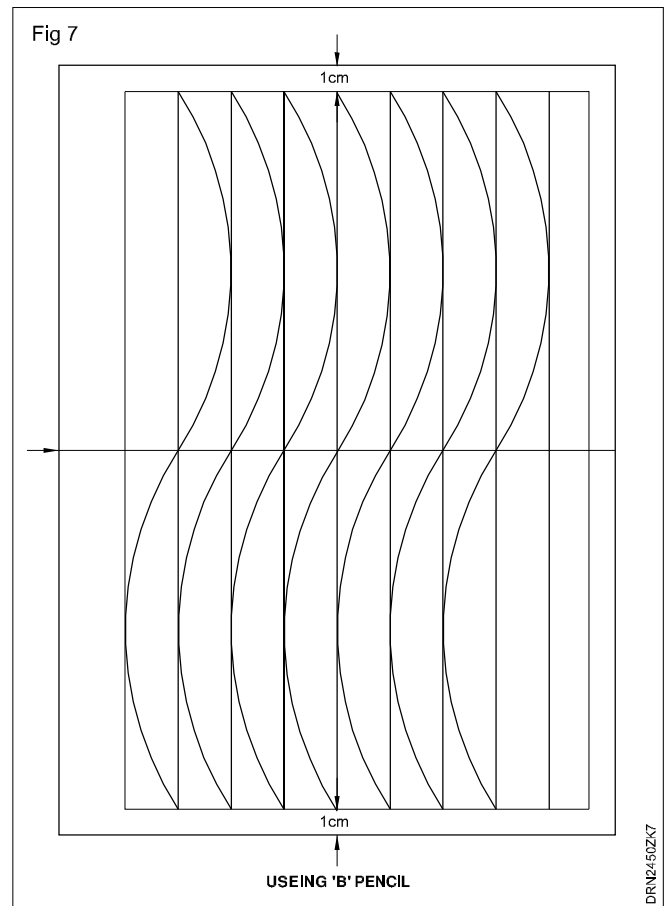
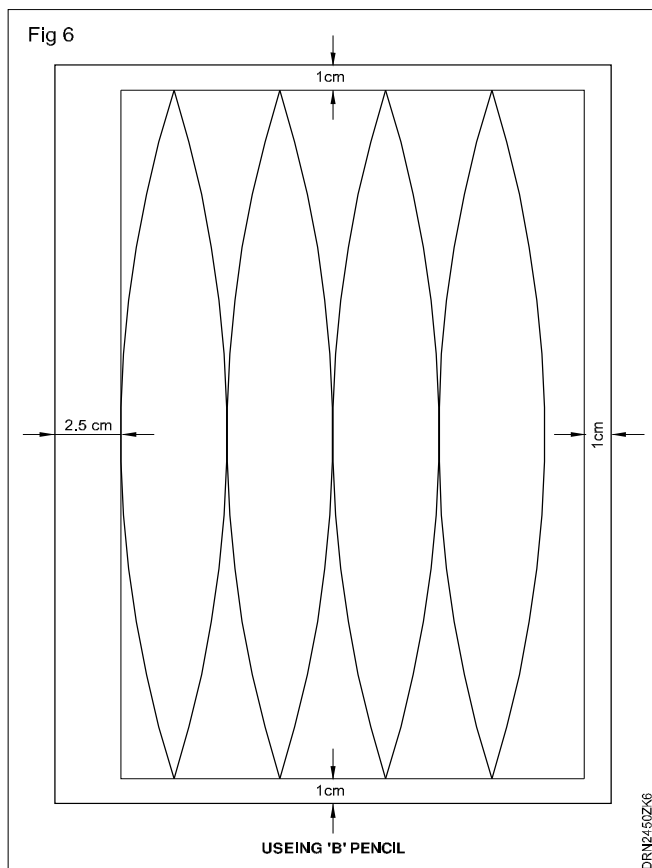
- 6 Draw 2.5cm on side& 1cm on 3 sides on 4 sheet using scale as shown in the Fig 4.



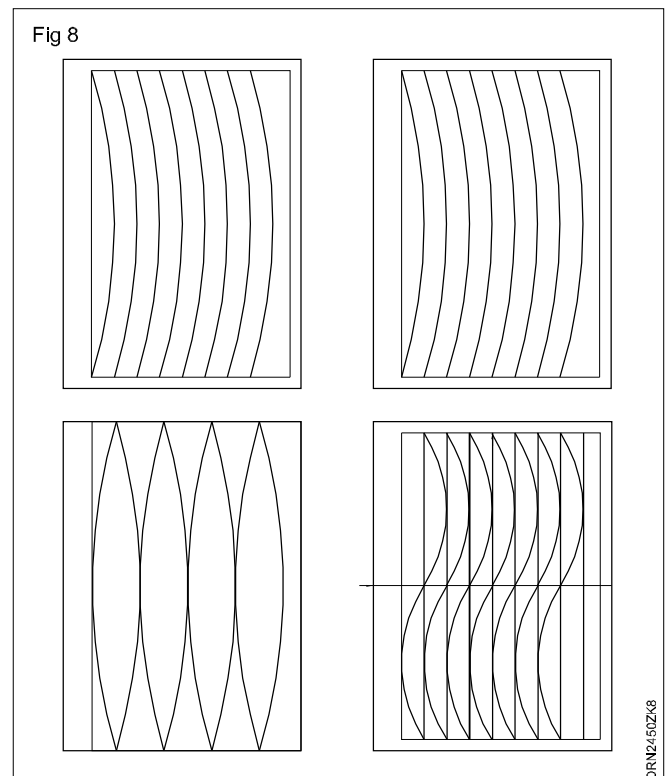
- 7 Mark 1cm in the top line (4) & 1cm on bottom line (B).
- 8 Fold the sheet into two & mark the centre point (c) for 2cm as shown in the Fig 5.



- 9 Join the lines using french curve giving for pressure on the pencil. as shown in Fig 6 & 7.



- 10 Follow the same procedure for free hand following the Fig 8



Practice on methods of removing different kinds of stains

Objectives: At the end of this exercise you shall be able to

- remove pencil mark stain
- remove chewing gum stain
- remove tea/coffee stain
- remove haldi stain
- remove egg/blood strain.

Requirements	
• Stain removing gun • White soap water • Art gum eraser • Plastic bag • Tweezer • Ice cubes • Water	• Cotton • Worm water • Borax • Hot water • Gasoline (or) Grease solvents • Chloroform liquid • Hypochlorite.

PROCEDURE

TASK 1: Remove pencil mark stain

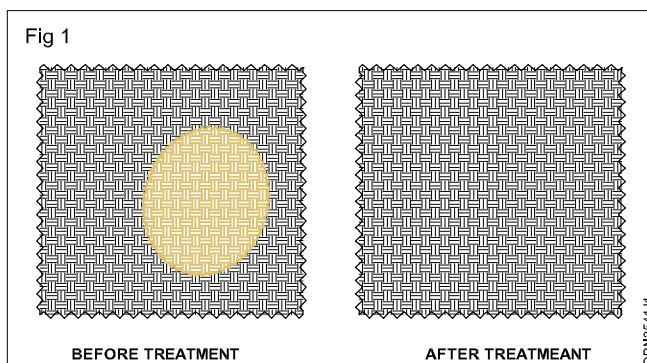
- 1 Take the shirt and place it on the table, start checking the stain which appears in the shirt.
- 2 Place the small piece of fabric under the stain area use the gum eraser to lift the shirt and starts rubbing the stained area.
- 3 After rubbing stained area apply the soap water by using the gun.
- 4 Take and hold the shirt away from the table as well as close to the gun.
- 5 After removing entire stain from shirt apply the water, wash the entire area.
- 6 Allow the shirt for drying for 10 minutes, then remove the shirt for the stained area.
- 7 Repeat the same procedure for the other sample.



TASK 2: Remove chewing gum stain

- 1 Place the cloth in a plastic bag with the gum stain facing the outside.
- 2 Place the ice cubes on the gum stain area. This process allow gum to harden.
- 3 Remove the ice cubes from the strained area and use the Tweezer to pick up the harden gum.
- 4 After removing the gum from the cloth use the liquid soap water by using gum.
- 5 Rub the cloth by using cotton untill the entire gum removed from the cloth.
- 6 Use the hot water to stained area more than 3 times.
- 7 Apply the soap water to affected area.
- 8 Finally use the water to removing the soap from stained area.

- 9 Allow the cloth for drying 15 to 20 miniutes.
- 10 Repeat the same producer for the other sample during the pratical sessions.

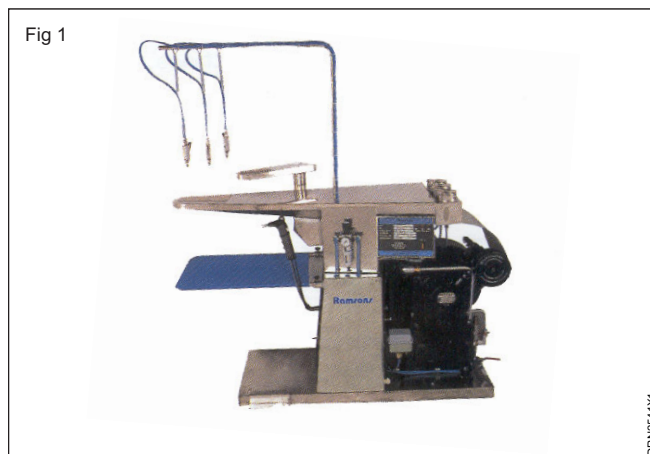


TASK 3: Remove tea coffee stain

- 1 Place stained components (Tea, coffee) on the table.
- 2 Cover the stain area with borax. (Fig 1)
- 3 Sponge the cloth with cover with borax
- 4 After sponge use the stain removing machine gun and apply the hot water
- 5 Pouring the hot water on the stained area, pouring the water should be high penetration
- 6 Remove the borax and use the liquid soap water by using the gum.
- 7 Finally use the water by spraying on the stained area.
- 8 Using the dry on stained removed place
- 9 Allow for drying 10 to 15 minute

Repeat the same procedure on the silk and polyester fabric.

Fig 1



DRN2541X1

TASK 4: Remove haldi stain

- 1 Place the oil (or) grease stained components on the stain removing machine table. (Fig 1)
- 2 Apply the grease solvents liquid by using stain removing machine.
- 3 After applying the stain removal solvent.
- 4 Allow the solvents to stays in the stained area for 1 minute.
- 5 After 1 minute using the water on the grease solvent by using the gun.
- 6 After removing entire oil stain from the cloth
- 7 Use the soap water by using gun to give high penetration.
- 8 Finally apply the water 2 (or) 3 time with gun
- 9 Allow the cloth to dry 15 to 20 minute.

Repeat same procedure on cotton and linen fabric.

Fig 1



STAIN REMOVING MACHINE

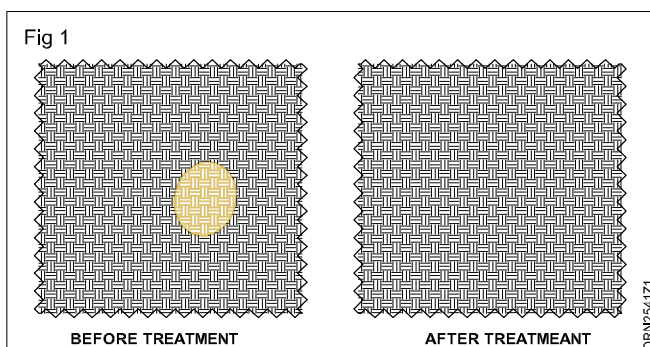
DRN2541Y1

TASK 5: Remove egg/blood stain

- 1 Protein stain cloth place it on the table.
- 2 Use the hypochlorite Bleach liquid on the (Blood) area.
- 3 Applying stain removal solvent have within the affected area.
- 4 After apply the stain removal solvent allow for the stays in the cloth 2 minute.
- 5 Use the cold water and remove the hypochlorite solvent from the cloth.
- 6 Apply the cold water 3 to 4 time untill the solvent completely removed from the stained area.

Repeat the same procedure on the cotton fabric practice for 2 to 3 times.

Fig 1



BEFORE TREATMENT

AFTER TREATMENT

DRN2541Z1

Check the measurements of a garment

Objective: At the end of this exercise you shall be able to

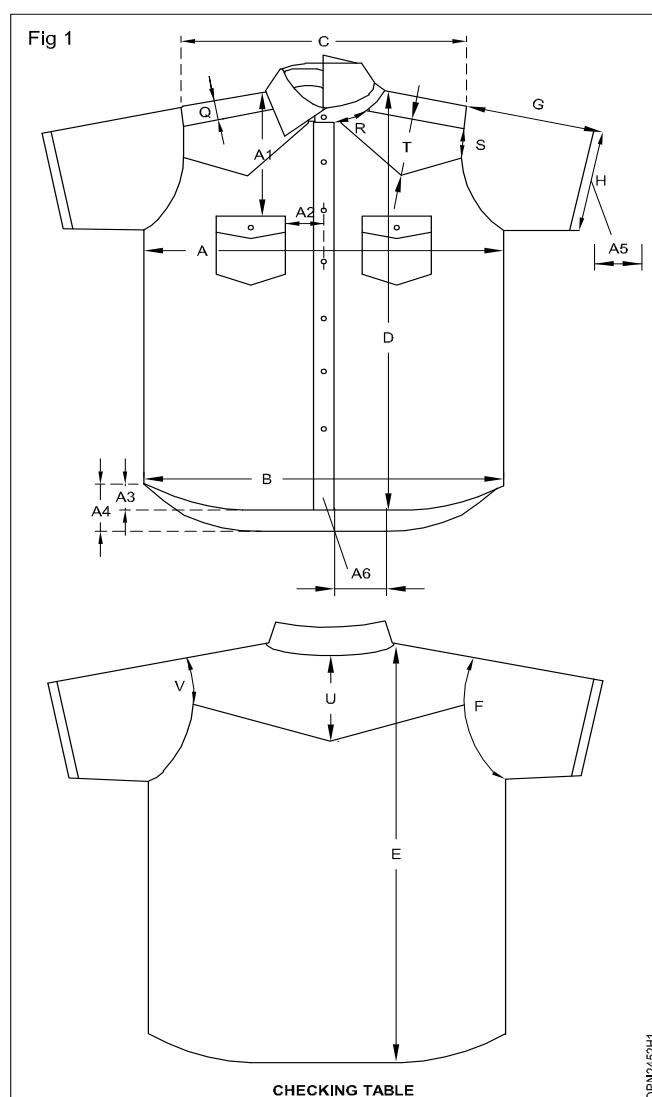
- check the measurement of a garment.

Requirements			
Tools/Instruments		• Spec. sheet - 1 No.	
• Checking table - 1 No. • Measuring tape - 1 No. • Scissors - 1 No. • Trimmers - 1 No. • Garment - 1 No.		Materials	
		• Checking the back yoke width back body - 1 No. • Seam remover - 1 No. • Measurement chart - 1 No.	

PROCEDURE

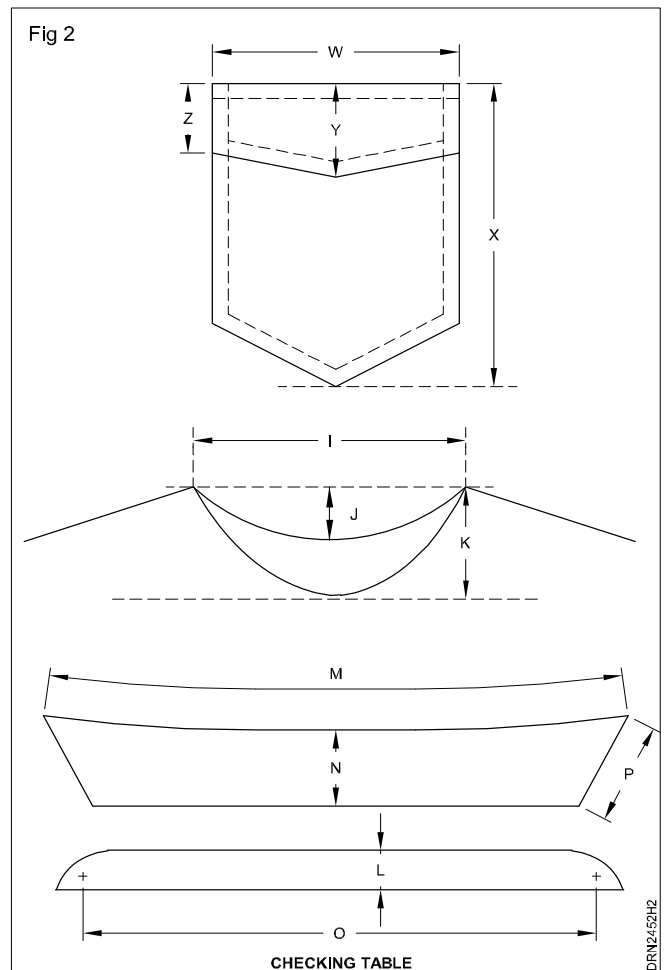
TASK 1: Check the measurement of a garment

- 1 Place the garment on the table.
 - 2 Check the measurement of the garment given in the spec. sheet with the help of the measurement tape.
- A Measure : Chest round from Armhole pitch to another armhole pitch.
- B Measure : Bottom round from end of the Bottom line to opposite side end of the Bottom line.
- C Measure : Shoulder length from cap of the sleeve to another cap of the sleeve.
- D & E Measure: High point shoulder from the Hps to till the Bottom line. (Fig 1)
- F Measure : Armhole round Measure the armhole curve along with the armhole shape
- G Measure : Sleeve length from cap of the sleeve to Bottom line.
- H Measure : Sleeve opening from the Bottom of sleeve round to end of the side seam.
- I Measure : Neck width from Hps to another Hps straight across the line
- J Measure : Back Neck drop from centre of Back to till seam end.
- K Measure : The Front neck drop from Hps to till the front Neck line.
- L Measure : Band width from the centre of the Neck band to seam line.
- M Measure : Collar outer line from outside collar point tip to opposite collar point tip.
- N Measure : Collar height from centre of collar top to till the seam line.
- O Measure : Neck round B to BH from half of the button to half of the button hole.
- P Measure : Collar point from the tiled area of the collar.
- Q Measure : Front forward from Hps to shoulder seam line.



Scan the QR code to view the video for this exercise

- R Measure : Yoke length front centre front neck to yoke length.
- S Measure : Yoke length from yoke side to yoke length.
- T Measure : Yoke length from centre of the yoke to yoke seam line
- U Measure : Back yoke length from the centre of neck line to end of the yoke seam. (Fig 2)
- V Measure : Back yoke side length. Measure from the top arm hole to yoke side length.
- X Measure : Pocket length from the top of pocket to till Bottom line.
- Y&Z: Measure the pocket mouth from the top of the pocket till seam of the pocket mouth.
- A₁ Measure : Pocket location from the Hps to pocket line.
- A₂ Measure : Pocket location from the centre front to pocket.
- A₃ Measure : Bottom hem from the Bottom line 3½" upward.
- A₄ Measure : Back tail from centre Back Bottom line 5½" upward measurements.
- A₅ Measure : Sleeve hemming from seam 1¼" fold to till the seam line.
- A₆ Measure : Placket width from the centre front seam to seam.



Check the stitch formation in garment

Objectives: At the end of this exercise you shall be able to

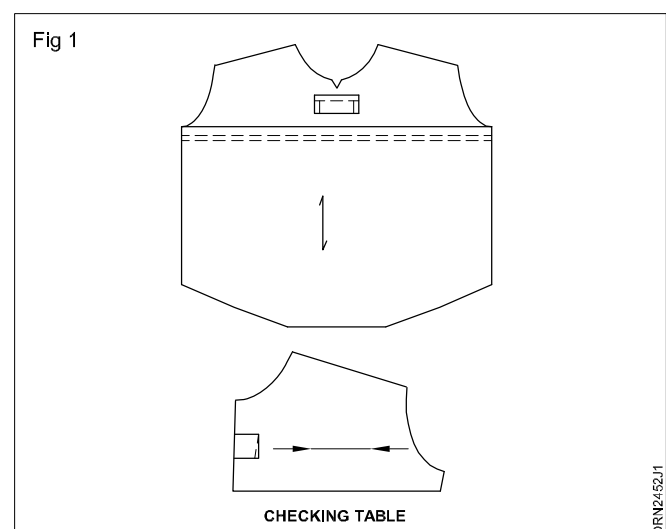
- inspect the semi finished stitched components as specified instruction
- inspecting and checking the back with yoke stitch components
- identify the checking front with pocket components as specified instruction
- identify the checking stitched components sleeve, cuff, sleeve packets as specified instruction
- identify checking the collar and collar Band stitched components.

TASK 1: Check back yoke stitched components

- 1 Place the back with Back yoke attached components.
- 2 Before checking the components remove the wrinkles presents in the components.
- 3 Check the back yoke label position and also check the center of the yoke and centre of the label matching. (Fig 1)
- 4 Check the top stitching of the yoke falls on the edges.
- 5 Fold the yoke portion and match the shoulder
- 6 Check the grain of the back yoke and Body grain as per the requirements.

Both the components grain marked at straight grain.

- 7 Fold the back body and match the armhole both left and right armhole should matched.

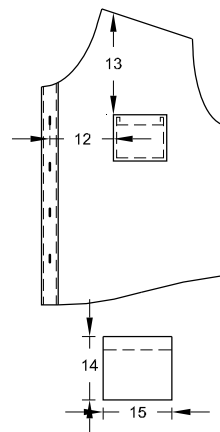


- 8 Check the centre of the yoke height measurements.
- 9 Turn the back components check there should not any stitch presents in the down yoke.
- 10 Check the both yoke shapes are matching.
- 11 Turn the components on the face side and check there should not any damages in the components.

TASK 2: Check collar and collar band stitched components

- 1 Checking the front components with pocket.
- 2 Place the components on the flat table checking the front area.
- 3 Check the Front placket stitching there should not be any joint stitches (Bar tack) presents in the placket.
- 4 Check the fusing presents in the front placket avoid the wrinkles presents in the placket by pressing front placket.
- 5 Check the button hole stitching any stitches are loosen and also check the Button hole cutted properly.
- 6 Check the length of Button hole is matching with the buttons.
- 7 Check the pocket area the pocket should stitched without any piping.
- 8 Check the stitches in the pocket stitch edges and without any join stitches.
- 9 Move the hands on the pocket and check any bubbles occurs in the pockets it should be flat.
- 10 Check the pocket edges the reinforcement stitches are properly stitched.
- 11 Turn the front components on the wrong side and check any loose stitches are presents in the components.
- 12 Finally start checking measurements of the front placket width.
- 13 Check the pocket position measurements from the front centre to pocket. (Fig 1)
- 14 Check the pocket position from shoulder to pocket.
- 15 Check the length of the pocket measurements.

Fig 1



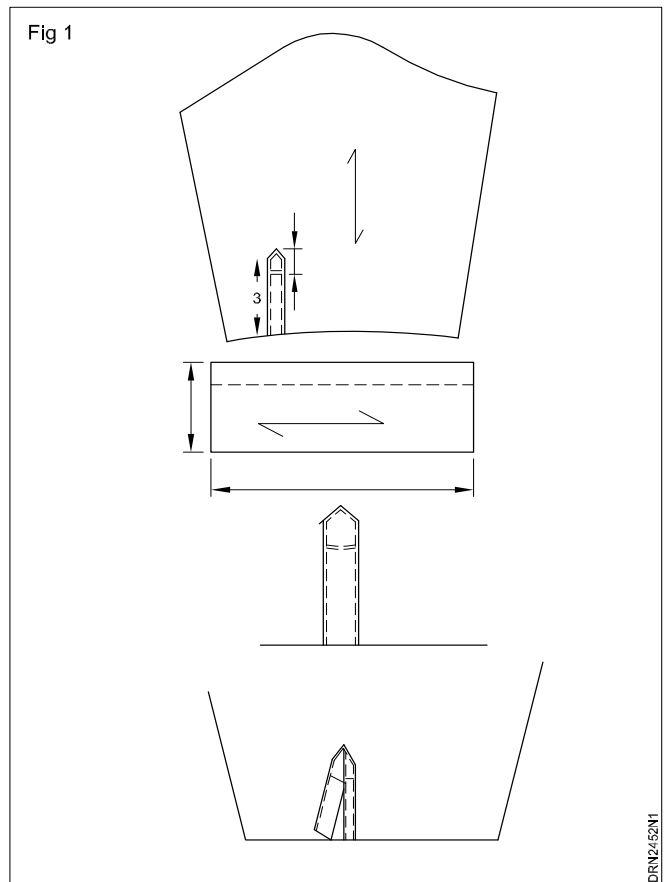
CHECKING TABLE

- 16 Check the width of the pocket measurements.
- 17 Check the pocket mouth measurements.
- 18 Check the pocket grain.
- 19 Check the pocket lines (checked fabric) matching with front components.

TASK 3: Check stitched components sleeve, cuff, sleeve plackets

- 1 Place the sleeve (left) components on the table.
- 2 Start checking sleeve components, sleeve placket stitching.
- 3 Check the length and width of the sleeve placket.
- 4 Check sleeve placket stitching All the top stitches on the placket on the edges, without any piping.
- 5 Check the placket stitched where any join stitches
- 6 Check the placket shape (square) of the placket exactly 1.
- 7 Lift the bigger placket check the smaller placket components.
- 8 Check smaller placket stitches are at edges.
- 9 Turn the sleeve components and check the placket area there should not any raw edges seen out side.
- 10 After completing the left sleeve components, check the right sleeve same and above mentioned procedure.
- 11 Check the cuffs stitched components.
- 12 Check the length and width of the cuffs.
- 13 Check cuffs top stitches avoid the piping.
- 14 Check the down cuffs should not be seen on the face side of the cuff.
- 15 Check the Both the cuffs are stitched in a straight grain. (Fig 1)

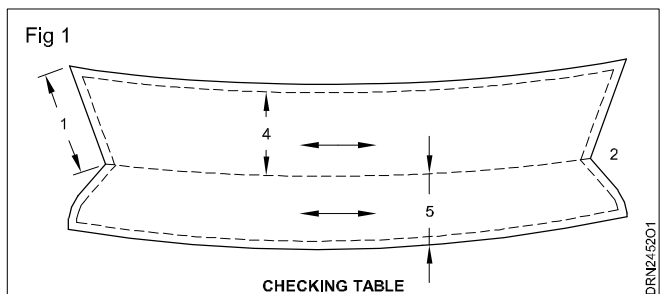
- 16 Fold the cuff and check both the cuff shapes are matching.
- 17 Repeat same procedure on the other cuffs.



TASK 4: Check the collar and collar band stitched components

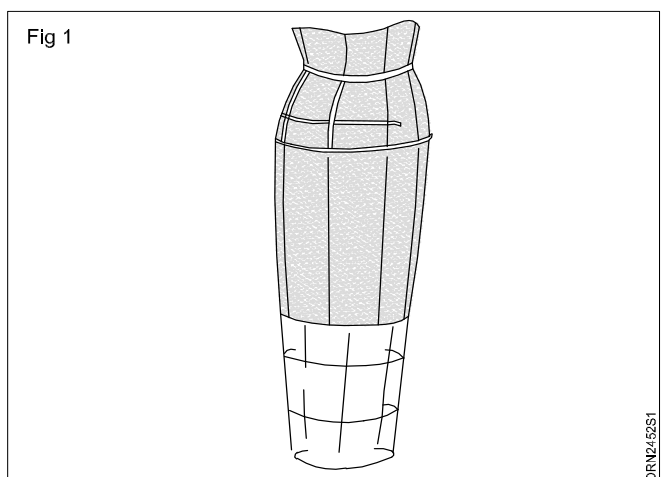
Check the collar stitched components

- 1 Fold the collar and check collar points on both sides are matching.
- 2 Check the collar picks shapes are matching.
- 3 Open the collar check the collar points measurements. (Fig 1)
- 4 Check the centre of the collar measurements.
- 5 Check the collar band measurements.

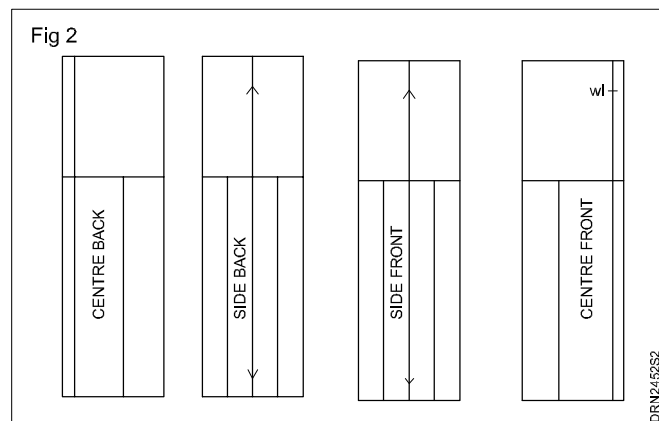


TASK 5: Prepare the muslin for draping

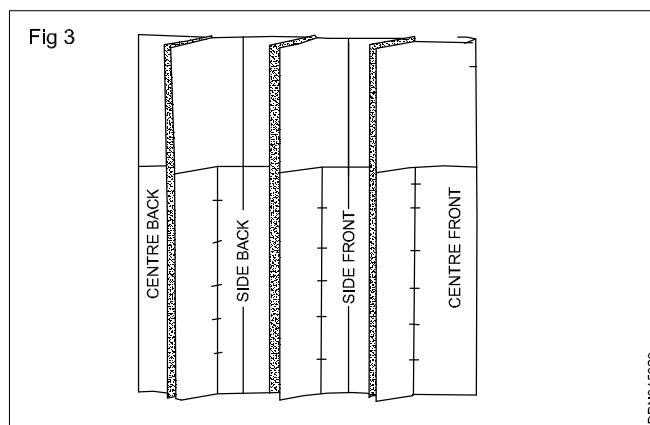
- 1 Mark the hip level with style tape in the dress form.
- 2 Tape gore seam from waist line to the hip level and tape center front to center back. (Fig 1)
- 3 Mark the length of skirt +2" + hem.
- 4 Width of the center front and back +2" for flare.
- 5 Width of the side panel +2 times flares +2 inches.
- 6 Draw the length wise grain for center front & center back and 1 Inch turn edge.
- 7 Draw a length wise grain at center each panel and cross mark 2 inches down from upper edge to the muslin for the waistline.



- 8 Measure 7 Inch down from the point for hip level and draw the crosswise grain hip line across the all panels.
- 9 Measure the distance from center front and center back to the gore seam at the hip line of the dress form.
- 10 Add ¼ inch for ease on the muslin. Draw a grain line from the hipline to the hem.
- 11 Measure the distance from side seam to gore seam-on both the front and back side panels. Add ¼ inch for ease in the muslin side panels. Draw the grain from hipline to hem. (Fig 2)

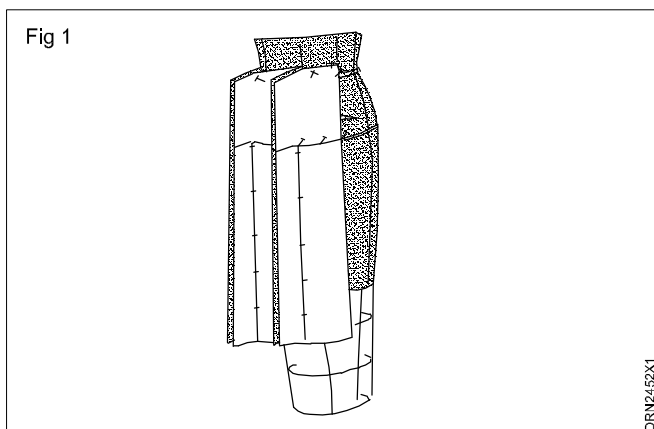


- 12 Pin all the panels. (Fig 3)



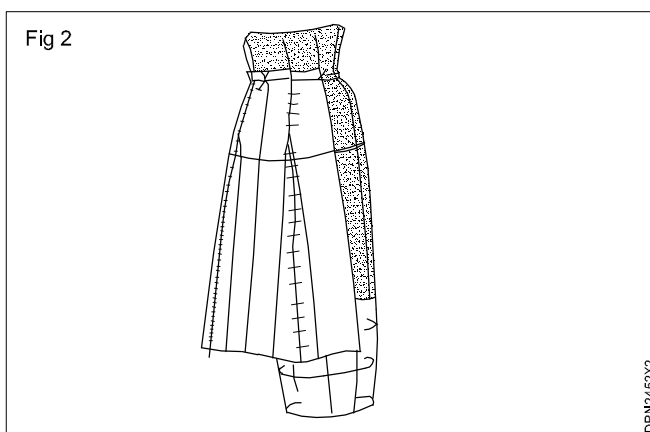
TASK 6: Draping method of Gored skirt

- 1 Pin the muslin center front and center back to the dress form at hip line and waist line.
- 2 Pin the center front to center back from hip line.
- 3 Smooth the center grain line and pin, taking a pinch for ease. (Fig 1)



- 4 Pin the side and center panels above the hip line.

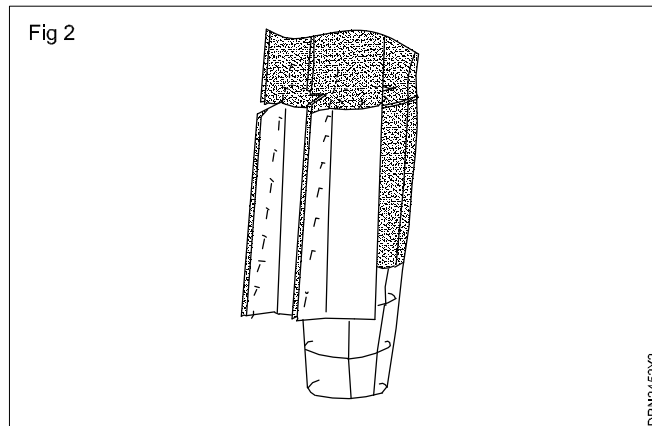
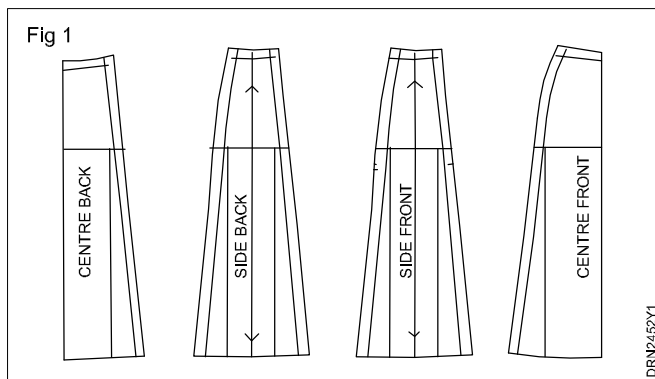
- 5 Ease is maintained in the entire hip area and pin the side seam.
- 6 Pin width of all flares on the dress form. Remove the pins to check the width of the skirt.
- 7 Seam to hang straight and the grain should be balanced. (Fig 2)



TASK 7: Perform drafting

- 1 Make a dot in a waist line and cross mark all seams.
- 2 Remove and mark the skirt from the dress form. Mark the all seams.
- 3 Draw a flare level using skirt curve and ruler.
- 4 Trace the seams and give the seam allowance place a notches into the seam allowance.

- 5 Separate the pieces of the skirt and repin the seam with matching notches.
- 6 Trim the excess muslin. And replace the skirt on the dress form and adjust the length. (Fig 1)
- 7 The distance from the floor to the hem every few inches along the lower edge of the skirt. (Fig 2)



TASK 8: Place on the tracing paper

- 1 Remove the pins and iron the muslin using iron box.
- 2 Place the muslin on the tracing paper.
- 3 Mark the point and square out the pattern.

TASK 9: Cut the pattern on the fabric

- 1 Place the paper pattern on the fabric and cut the fabric using scissors.

Analyze the quality defects and causes

Objectives: At the end of this exercise you shall be able to

- analyse yarn defects
- analyse weaving defects
- analyse cutting defects
- analyse sewing defects.

Labels

Defect if crooked, missing, incorrect, insecurely attached or seriously puckered. Stitching not to cover logo in any manner. Distortion between the two after stitching is called manner. Distortion between the two after stitching is called ply shift.

Snaps fasteners

Missing, loose or misaligned stud must match socket within $\frac{1}{4} \times h$. Greater tolerance allowed only if appearance is not seriously affected.

Buttons: Loose, damaged, missing. Or misaligned to buttonhole $\frac{3}{8} \times h$. Bottom must easily button through button holes. Button size is $18 \times f \times f$ and button dia is $18 \times \frac{1}{40} \times 25.4 = 11.43 \text{ mm}$.

Elastic

Exposed : No more than three (3) needle cut elastomers allowed.

Measurements.

Must not exceed tolerance specified on individual in process specifications(Allowance must be made for seam off and stitch margins on subsequent operations). Mends

or repairs : Defective if mend or repair will adversely affect garment appearance or fit. Lock stitch repair must overlap a minimum of three(3) stitches starting and finishing. Obvious double stitching on exposed seams not allowed. Lock stitch repair on chain stitch allowed provided stitch lines and SPI coincide and purpose of chain stitch is not affected (ie. Stretch) skipped stitches means double the stitch length in certain area. SPI means stitches per inch.

Stripe : On stripe matched seams, stripes must match $\frac{1}{4} \times h$.

Hems : Defective if excessively curled, puckered, pleated or excessive bite. Pockets, Motifs, Heat seal, Appliques, Embroidery, Sublistatic print, Screen print, Zippers, Col-lars : Poorly attached, position incorrect, incomplete, zipper inoperative.

Smocking : Ends not caught securely such that subsequent operations will fail to secure. Incorrect design. One skip on securing stitch or obvious skips on decorative thread affecting appearance.

Trim : Missing or obviously pieced, shaded or defective so as to affect appearance of finished garment. Broken needle : Any broken needle left in garment.

Defects and their causes

The defects (flaws) can be classified into six broad groups

The defects (Flaws) can be classified into 6 broad groups:

- 1 Yarn defects
- 2 Weaving defects
- 3 Piling and raising defects
- 4 Processing defects
- 5 Fabrication defects
- 6 Make up defects

Yarn defects

1 Slub

Slub is a bunch of fibres having less twist/no twist and having larger diameter compared to normal spun yarns.

The slub will give undesirable appearance in the fabric (other than fancy slubby yarn fabrics wherein slub is novelty)

Causes

- 1 Improper carding/combining.
- 2 Improper piecing in drawing and roving.
- 3 Improper cleaning of the cans holding the silver resulting in carrying of the soft waste.
- 4 Improper cleaning schedule of top rollers and clearers in drafting, roving and ring frame.
- 5 Broken tooth in the chain of gear system. Failure of pneumatic suction system.
- 6 Frames not properly cleaned after floor sweeping resulting in flying lints.
- 7 Careless piecing of the ends-down at the ring frame.

2 Slubby weft

Occurrence of slubs at frequent intervals in weft yarn.

Causes:

- 1 Same as that of slubs.

3 Coloured flecks

- 1 Presence of coloured foreign matter in the yarn.

Causes

Contamination of yarn during ginning stage due to leaves, seed coat, immature fibre, yellow fibre, tie yarn etc. which gets embedded into the fabric at the time of the weaving.

4 Knots

Piecing of broken threads with tail end or improper knotting.

Causes

When the thread breaks during the process of winding, warping, sizing and weaving if the knotting machine is not used it results in long tail end or thick knot.

5 Broken filament

The individual filament constituting the main yarn being broken.

Causes

During the process of winding, warping, etc. the yarn guide having sharp edges may cut individual filaments and abrasion caused at the time of weaving while passing through healds and reeds.

Weaving defects

1 Missing ends

The fabric is characterised by a gap parallel to warp.

The number of ends missing may be one or more.

Causes

- 1 Loom not equipped with warp stop motion.
- 2 Drop wired dirty. Accumulation of lint may prevent their dropping.
- 3 In electric warp stop motion, the electro bars are dirty or corroded.
- 4 Bent or broken drop wires.
- 5 Even when the loom is equipped with warp stop motion the sized beam is such that it cannot be woven with warp stop motion on. This is in case of *gsoft beam*h and *gdamp beam*h or wet beam.
- 6 Excessive warp breaks.
- 7 The weaver is careless is not tying the end in time.
- 8 The basic yarn is of poor strength for the quality of fabric woven.

2 Oily or soiled ends

These are oily or soiled warp threads of longer length frequently seen at short intervals.

Causes

- 1 Handling and storing in the spinning department is not proper.
- 2 Oil contaminated guides and soiled hands during the process of warping.
- 3 Improper handling of the warp beams.
- 4 Oil dropping during the process of oiling the loom and its accessories.
- 5 Drop pins in the warp stop motion containing oil.

3 Float

Improper interlacement of warp and weft threads in the fabric over a certain area.

Causes

- 1 Healds touching each other causing some ends to remain up.
- 2 Shed not divided properly resulting the shuttle to leave some ends up.
- 3 Broken healds.
- 4 Tight ends in weaver fs beam cause a few ends to remain up than normal warp.

- 5 Heald strap slack.
- 6 Heald hanging, a cotton fluff between warp layers.
- 7 Broken end entangled with other ends.
- 8 Broken heald eyes.
- 9 Improper sizing the ends sticking.
- 10 Crossed-ends from sizing or in loom shed.

4 Weft crack

Presence of open space along the width of the fabric.

Causes

- 1 Faulty let-off and take-up motion.
- 2 Faulty weft stop motion.
- 3 Loom break not functioning effectively.
- 4 Anti-crack motion not set properly.
- 5 Fell of the cloth not being adjusted after loom stoppage for mending.

5 Weft bar

Presence of thick or thin place along the width of the fabric.

Causes

- 1 Difference in count/denier, twist, colour, shade, luster or pick spacing of weft yarn.
- 2 Faulty let-off and take-up motion.
- 3 Fell of the cloth not being adjusted after loom stoppage for mending.

6 Oily weft

Streaks of dirty & oily weft appearing across the width of the cloth.

Causes

- 1 Cleaning and oiling when the yarn is on ring frames.
- 2 Weft bobbin falling on oily ground.
- 3 Handling the weft yarn with oily hands.
- 4 Weft carrying baskets having oil or oily fluff.
- 5 Unclean environment in winding and weaving departments.
- 6 Droppings of oil on the weft pirn during oiling of the winding machines and loom.

7 Box marks

A widthwise fine line near the selvedge showing stained or injured weft.

Causes

- 1 Improper adjustment of shuttle box front plate.
- 2 Improper cleaning of shuttle box.

8 Slough off

Slough off is a bunch of weft woven into the fabric.

Causes

- 1 Improper winding of the yarn on to the weft pirn.
- 2 Improper shape and size of the pirn.
- 3 Due to harsh picking. Shuttle rebounding in the box.
- 4 Improper spring tension in shuttle.

9 Broken ends woven-in-bunch

Bunch of broken ends woven in the fabric.

Causes

- 1 Failure of weaver in attending to the warp breaks immediately.

10 Stitches

A minor float either in warp or weft way. It is very prominent in case of different colour of warp and weft.

Causes

- 1 Due to improper local shedding.
- 2 Two adjacent ends sticking together during shedding for a brief period of time.
- 3 Adjacent plies in a block are fused together is ply-to-ply fusion.

11 Snarls

A short length of yarn, mainly weft, which has spontaneously doubled back on itself.

Causes

- 1 Excessive twist on yarn or where with high twist is used, the twist has not been set.
- 2 Low relative humidity in the loom-shed.
- 3 Tension on yarn drawn from shuttle is not uniform. Check the shuttle eye, fur if applied and position of weft bobbin in the shuttle.
- 4 Tension on warp yarn low.
- 5 Late shedding.

12 Gout

Foreign matter usually lint or waste accidentally woven into the fabric.

Causes

- 1 Improper loom cleaning.
- 2 Unclean environment in weaving departments.

13 Broken pattern

Non continuity of design/pattern.

Causes

Wrong drawing of threads in the colour pattern. Inserting a pick in a wrong shed a incorrect shedding.

14 Oil or other stain

These are spot defects of oil stains, rust stains, grease stain, and/or other stains found in the fabric.

Causes

- 1 Improper oiling/greasing of looms.
- 2 Flying lint dropping on the woven cloth.
- 3 Rusted or oil stained take up roller.
- 4 Improper handling of the fabric from the doffing stage.
- 5 Oil dropping at the folding machine.
- 6 Dropping of oil contaminated lint and packing material.
- 7 Improper oiling/greasing of the press.

15 Hole, cut or tear

Self explanatory.

Causes

- 1 Sharp edge on cloth roll or front rest.
- 2 Hard substance between layers of fabric in loom cloth roll.
- 3 Cotton fluff, leather parts or iron particles woven in cloth.
- 4 The cloth roll striking against sharp pointed edge during transport or when is being doffed.
- 5 Coarse temples used for fine fabric.
- 6 Temple rolls not properly set, ie., very high or low.
- 7 Right hand temple used in place of left hand and vice versa.
- 8 Very coarse hooks at grey folding.
- 9 Wrong weft fork timing in case of centre weft fork which causes small holes at the centre of the fabric.
- 10 Carelessly placing the shuttle on the cloth while changing the pirn.
- 11 Faulty emery roll.
- 12 Cloth not gaited up on the cloth roll properly.

16 Local distortion

Displacement of warp or weft from their normal position.

Causes

- 1 Emery roll in weaving unevenly worn out.
- 2 In filament fabrics having low reed picks.
- 3 The other causes for distortion are given under processing defects.

17 Selvage defects

The different defects appearing at the selvage. In-house training on visual quality inspection.

Causes

- 1 Difference in picking force which causes pulled-in/wavy selvage.
- 2 Improper drawing and tension of the selvage ends.
- 3 Temple roller not functioning properly. Incorrect balance of cloth structure between the body and selvage yarn.

18 Lashing-in

An extra piece of yarn woven into the fabric in the vicinity of the selvage.

Causes

- 1 Defective setting of the shuttle box, rough edges in the front plate of the shuttle box.
- 2 Harsh picking.
- 3 Extra weft yarn left hanging at the change of weft pirn.
- 4 Warp too tight or too slack.
- 5 Picking early or late.
- 6 Weft fork going too far through grate.
- 7 In case of auto loom weft cutters worn out or not properly set.
- 8 Worn out pickers.

19 Untrimmed loose threads

Any hanging threads on the face of the fabrics.

Causes

- 1 Long end and short ends of warp not removed after piecing up.
- 2 In case of auto loom weft cutters worn out or not properly set.
- 3 Carelessness of the weaver during pirn change.

20 Double ends (Multiple ends)

Two or more ends unintentionally weaving as one. This defect is characterized by a thick bar running parallel to the warp.

Causes

- 1 Mixing up of threads during process of spinning/winding/warping/sizing.
- 2 Wrong drawing, taking more ends in heald eye or reed dent.

21 Smash

Ruptured cloth structure characterized by many broken warp ends and floating picks.

Causes

- 1 Improper timing/setting of loom like insufficient picking force, defective warp protectory motion, failure of break system, race board not being level and picking spindle not smooth.
- 2 Damaged picking band/picking stick.
- 3 Worn out picking accessories.
- 4 Slack ends in certain portion. The sagging ends obstruct shuttle flight.
- 5 Defective shuttle.

22 Reed marks

A pronounced warp way crack or coloured marks left by the reed at the time of starting of the loom.

Causes

- 1 Defective reed.
- 2 The reed cap not covered properly when the loom is idle.

Piling and raising defects

1 Pile less spot

In terry and velvet fabrics the spot without pile where it should have been.

Causes

- 1 Improper working of terry motion on loom.
- 2 Improper functioning of jacquard.
- 3 Uneven raised spot.
- 4 If the raising is uneven on certain spot it shows a patch.

2 Uneven or loose piles

Variation in pile height over the surface of the fabric.

Causes

- 1 Improper tension of loose warp beam.
- 2 Improper working of terry motion.
- 3 Missing pick.
- 4 In-house training on visual quality inspection.

Uneven raising

If the raising is uneven on certain places it shows patches or uneven raised surface.

Causes

- 1 Improper working of raising needle.
- 2 Pressure and level of raising machine is not maintained properly.

Processing defects : (Related to bleaching / Dyeing)

- 1 Bleaching spot (Yellowing, uneven bleaching, poor bleach over baking)

The fabric is characterized by the yellow tint in the bleached cloth. In the bleached goods such difference will not be acceptable to the cloth market.

Causes

- 1 Improper scouring (removal of natural and added impurities like natural fats, waxes, proteins and other constituents, as well as dirt, oil and other impurities)
- 2 Improper feeding of the fabric.
- 3 Improper timing of rinsing.

2 Watermark

An unwanted rippled effect / light mark produced on the fabric.

Causes

- 1 Improper scouring.
- 2 Surface pressure of one layer fabric on another.

- 3 Contamination with water prior to tinting or dyeing on pad mangle resulting in a reduction in uptake of dye liquor.

3 Dyestuff stain

An unwanted coloured mark on a fabric.

Causes

- 1 Improper scouring.
- 2 Improper mixing of dyestuff.

4 White spot

The fabric is characterized by white spot on otherwise well dyed adjacent cloth.

Causes

- 1 Improper scouring.
- 2 Improper bleaching.
- 3 The mixture of dyes used in dyeing is not compatible.
- 4 Colours not properly dissolved.
- 5 Proper time and temperature not given in dyeing.

5 Patchy or streaky or uneven dyeing

The fabric is characterized by area of light or heavy dyeing along and across the width of the fabric. Also light or heavy dyed patches or light dark lines appear on the cloth. It also includes shade variation and heavy or light dyeing on selvages. Spectrophotometer used for sorting shade variation.

Causes

- 1 Improper scouring.
- 2 Cloth fed to dyeing machine not crease free.
- 3 Fluff or threads on the fabric or in the dyestuff.
- 4 Defective padding roller.
- 5 Proper time and temperature not given in dyeing.
- 6 Difference in count/fibre composition in weft yarn.

7 Shading and listing

Gradual change of shade from selvage to the body of the fabric.

Causes

- 1 Often caused in jig dyeing through difference of temperature between the selvages and the centre of the batched up fabric on the jig roller.
- 2 By uneven batching-up of the cloth on the rollers.

8 Misprint/Absence of print

The printing is not as per the required design. The outlines and colours in the design do not remain at their proper place. A bare place without any printing.

Causes

- 1 The design is not set properly.
- 2 Unequal pressure at different places during printing.

- 3 Design not properly engraved/screened.
- 4 Improper cloth used for printing a improper stitching of loth.
- 5 Cloth fed with uneven tension to printing machine.
- 6 Improper storage and cleaning of screen.

9 Defect caused by hanging thread

Loose thread in the face of a printed fabric causing break of pattern.

Causes

- 1 Loose threads in the fabric not trimmed before printing.

10 Doctor's stain

The fabric is characterized by colour blotch or bars.

Causes

- 1 Doctor blade and printing roller not cleaned.
- 2 Doctor blade is not aligned.

11 Uneven printing or tinting. (light and dark printing)

A printed fabric the design on one side is bold and as required while on other side, the same is hazy, light and clear.

Causes

- 1 Uneven pressure on printing rollers and doctor blade.
- 2 Uneven lapping of central drum in printing machine.
- 3 Diameter of the printing roller is uneven.
- 4 Printing paste level not maintained a defective doctor blade. PRinting table is not proper.

12 Doctor line (colour streaks, lines)

An unwanted straight or zig zag lines in the printed fabric.

Causes

- 1 Defective and unclean doctor blade.
- 2 Grit in colour.
- 3 Improper settting and pressure of doctor blade.

(Related to miscellaneous processing defects)

13 Blurred or dark patch

An unwanted blotch or bar in a printed/dyed fabric.

Causes

- 1 Improper scouring.
- 2 Unclean doctor blade and printing roller.
- 3 Doctor untrang web nay coi cung hay, vao coi thu di <http://nhattranglan.xlphp.net/> not properly aligned.

14 Bowing (skewing)

The fabric condition in which warp and weft yarn do not keep at right angle to each other. Weft threads are angularly displaced mean by skewness. When weft yarn are angularity displaced from a line perpendicular to the fabric edge is skewness.

Causes

- 1 Improper stretch during scouring, dyeing or finishing.
- 2 Uneven tensions during weaving/processing.

15 Related to pilling

The entangling of fibres during washing, dry cleaning or in wear to form balls or pills which stand protruding the surface of a fabric and which are of such density that light will not pass through them.

Causes

- 1 Span length not maintained in spinning.
- 2 Broken filament or low twist yarn.
- 3 More abrasion on surface of cloth during processing.

(Related to milling)

16 Milling rigs

Creases produced in milling.

Causes

- 1 Improper feeding of cloth in milling.

17 Uneven milling

Uneven matting together of fibres.

Causes

- 1 Improper application of moisture, mechanical action and heat.

Fabrication defects

1 Size variation

Any dimension in a piece beyond the acceptable limit.

Causes

- 1 Carelessness of the operative.
- 2 Variations in the cutting or stitching operation.
- 3 Use of defective measuring devices.

2 Defective hemming

Folded or rolled portion used for hemming is not uniform and also not evenly pressed.

Causes

- 1 Carelessness of the operative.
- 2 Variations in the cutting/stitching operation.
- 3 Lack of training to the operative.

3 Cutting defects

Improper cutting, uneven cut size, cross cut, bend etc., resulting change in the shape of the product.

Causes

- 1 Use of damaged or wrong cutting device.
- 2 Inadequate training to the operative.
- 3 Cutting device not properly maintained.

- 4 Carelessness of the cutting operative. Use of damaged or wrong pattern/template.

4 Stitching defects

Defects resulted during stitching operation such as skip stitch, stitch bend, cross stitch, broken stitch, holes, less number of stitches per inch, oil drops, etc.

Causes

- 1 Poor maintenance of the stitching machine.
- 2 Operating at too much thread tension.
- 3 Improper setting in the sewing machine.
- 4 Unsuitable sewing thread.
- 5 Lack of training to the operative.

5 Misalignment of parts

The parts of the garment or madeups are not correctly positioned as required, resulting wrong pattern/design.

Causes

- 1 Wrong positioning the parts while stitching.
- 2 Cutting not as per the design/pattern.
- 3 Selection of wrong measurements.
- 4 Damaged pattern/template.

Corrective measures in garmenting

Objective: At the end of this exercise you shall be able to

- check the corrective measures of garments.

Corrective measures in garmenting

Name of defect	Root cause	Corrective action plan	Preventive action plan
Broken stitch	Due to trimming problem	Operator should careful about trimming	We train up our operator about proper trimming
	Due to thread stability problem	We have to carefully check thread stability	Alert to be check thread stability
Skip stitch	Needle problem	Change needle randomly after 2 Hrs	Train up the operator
	Due to improper machine adjust problem	Mechanic properly setup to avoid skip stitch	We aware our operator about how to avoid skip stitch
Uneven/wavy stitch	Operator careless sewing	Operator should careful about their sewing operation	We should train up our operator about proper sewing process
Cracked stitches	Improper machine adjustment	Stop the machine & ensure proper machine adjustment	Mechanics must check the machine condition before strating sewing
	Due to less thread stability	Operator have to carefully check thread stability after sewing by stressing seam line	We should train up our operator how to check seam elasticity
Open seam	Operator handling problem	Operator shall be work carefully	We are training our operator about how to work in a proper way
	Operator didn't follow M/C guide in properly	They will be follow the M/C guide properly and they ensure proper seam line	We are training our operator about how to proper use of machine guide

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Make marker on different width, texture and design for garment

Objective: At the end of this exercise you shall be able to

- make marker for a shirt using plain fabric
- make marker for a shirt using striped fabric
- make marker for a shirt using plaid fabric
- make marker for a shirt using one way fabric
- make marker for a frock using plain fabric
- make marker for a blouse using plain fabric
- make marker for a trousers using plain fabric.

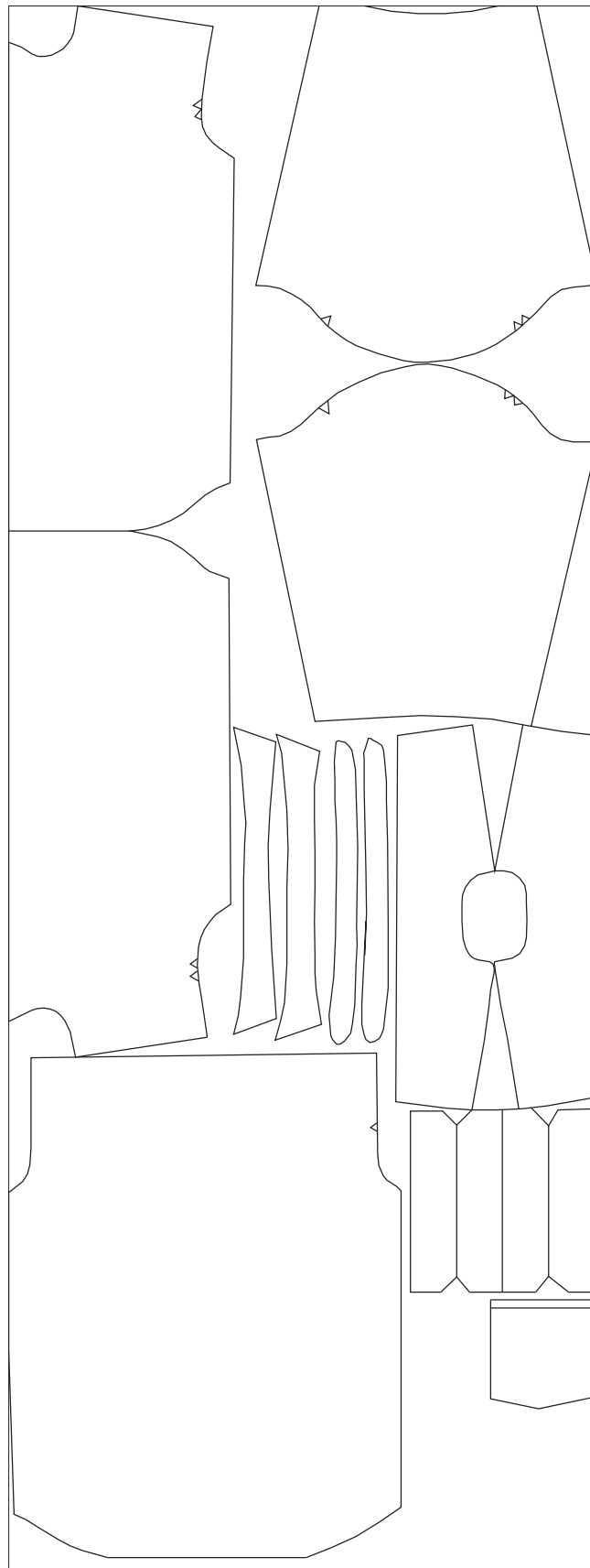
Requirements			
Tools / Instruments			
• Cutting table	- 1 No.	• Plaid(Checked designed fabric)	- 3 m.
• Metre scale	- 1 No.	• Printed one way fabric	- 3 m.
• Measuring tape	- 1 No.	• Pattern set for gent's shirt	- 1 No.
• Pattern weights	- 1 No.	• Marking chalk	- 1 No.
Materials			
• Plain poplin fabric	- 3 m.	• Pattern set for blouse	
• Striped fabric	- 3 m.	• Pattern set for frocks	
		• Pattern set for trouser	

PROCEDURE

TASK 1: Make marker for a shirt using plain fabric

- 1 Place the plain fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the shirt patterns on the fabric economically.
- 3 Try different layouts and choose the best one which gives the least fabric consumption. (Minimum Lay length). (Fig 1)
- 4 Mark the outlines of the patterns with the help of the marking chalk.

Fig 1

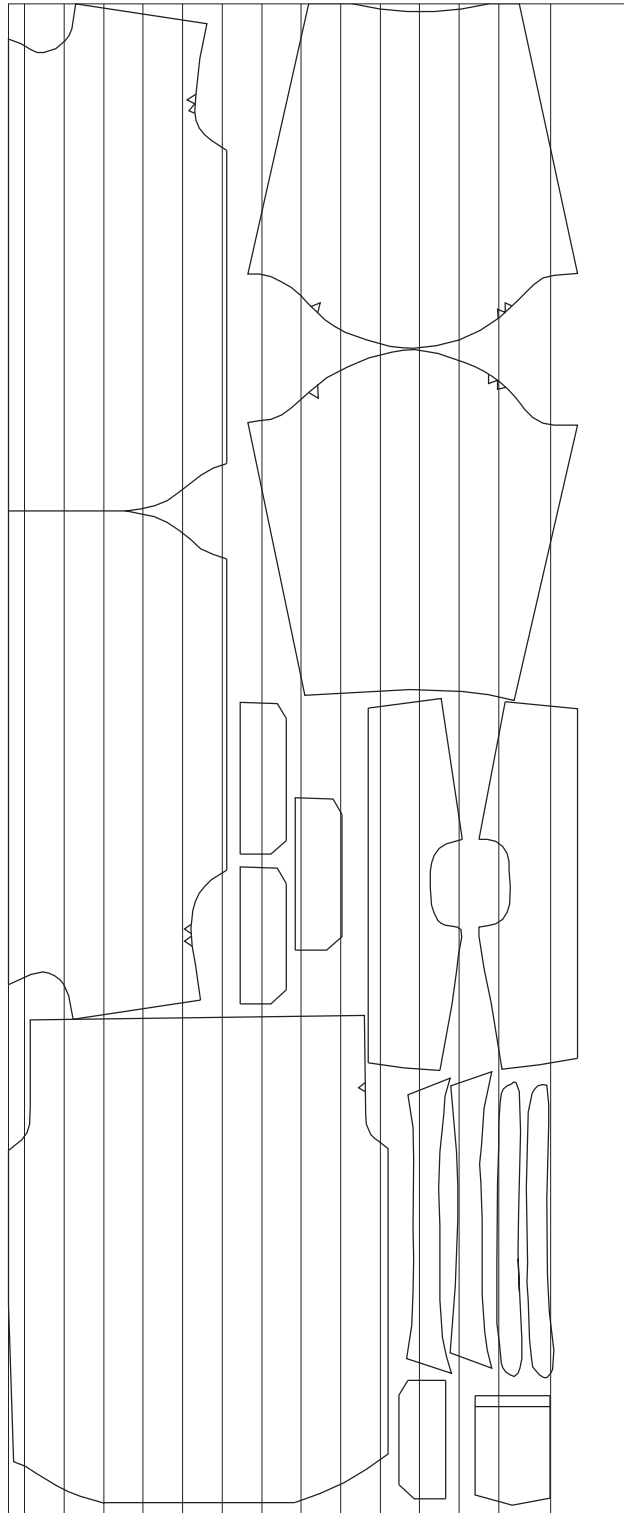


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TASK 2: Make marker for a shirt using striped fabric

- 1 Place the striped fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the shirt patterns on the fabric economically.
- 3 Lay the two front patterns one below the other so as to obtain the line matching properly on the both the fronts. Follow this for sleeves also.
- 4 If possible, place the pocket pattern below the left front so as to get the line matching.
- 5 Try different layouts and choose the best one which gives the least fabric consumption. (Minimum Lay length). (Fig 1)
- 6 Mark the outlines of the patterns with the help of the marking chalk.

Fig 1

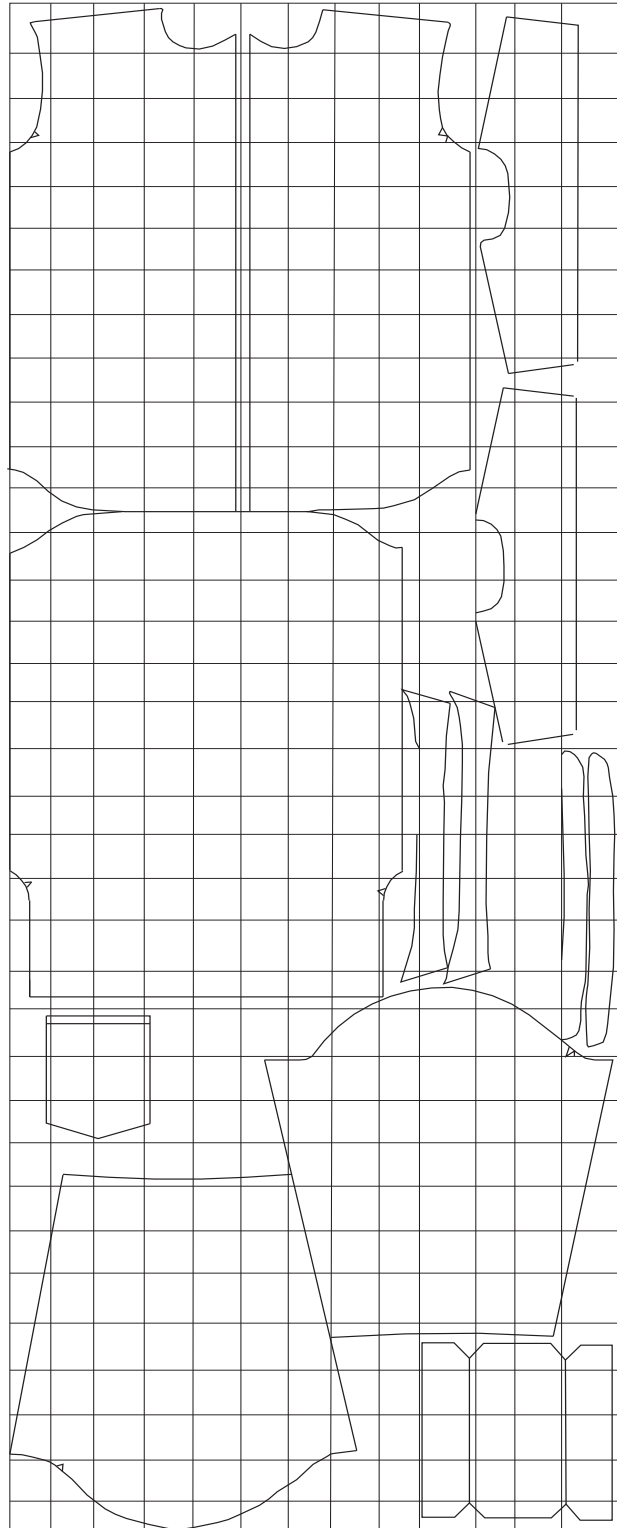


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TASK 3: Make marker for a shirt using plaid fabric

- 1 Place the Plaid fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the shirt patterns on the fabric economically.
- 3 Lay the two front patterns nearby so as to obtain the horizontal line matching properly on the both the fronts. If possible, follow this for sleeves also.
- 4 If possible, place the pocket pattern near the left front so as to get the line matching.
- 5 Try different layouts and choose the best one which gives the least fabric consumption. (Minimum Lay length). (Fig 1)
- 6 Mark the outlines of the patterns with the help of the marking chalk.

Fig 1



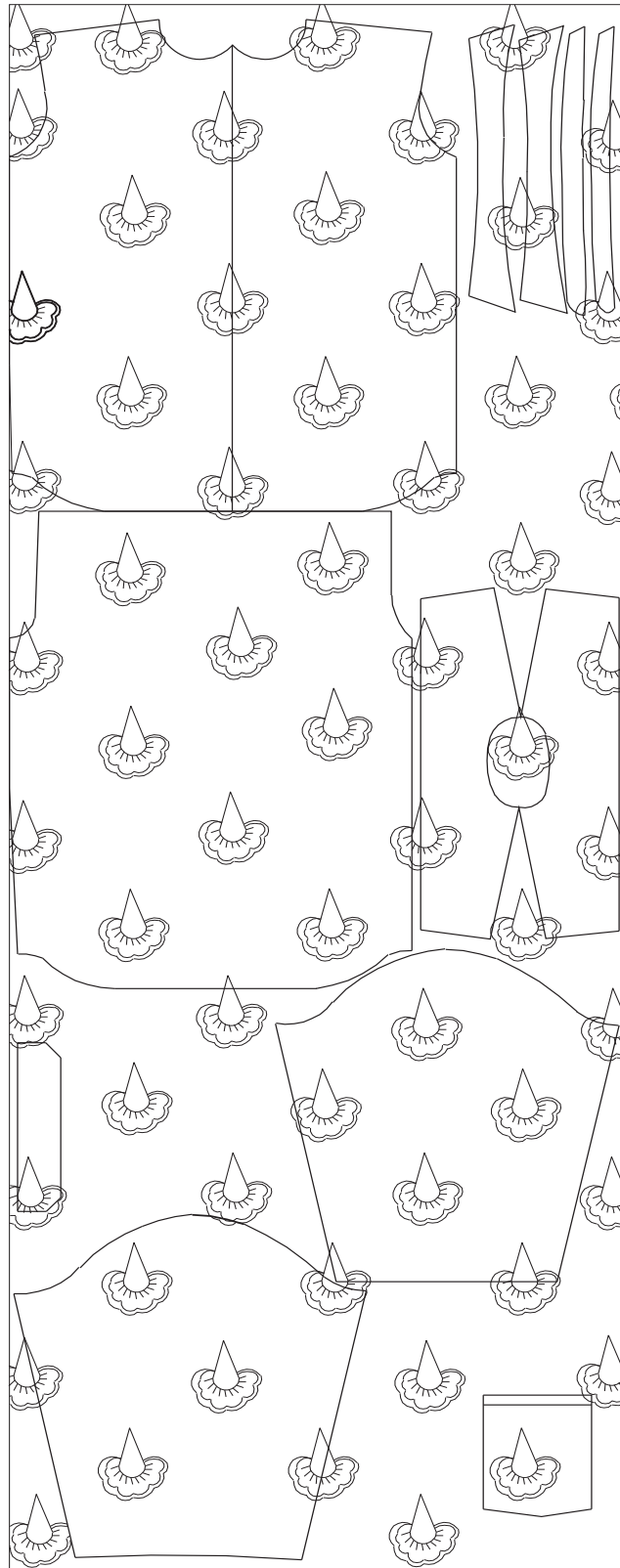
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TASK 4: Make marker for a shirt using one way fabric

- 1 Place the one way fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the shirt patterns on the fabric economically.
- 3 Lay all the patterns in same direction to get the one way design effect.
- 4 Try different layouts and choose the best one which gives the least fabric consumption. (Minimum Lay length). (Fig.1)
- 5 Mark the outlines of the patterns with the help of the marking chalk.

Get the work checked by your instructor.

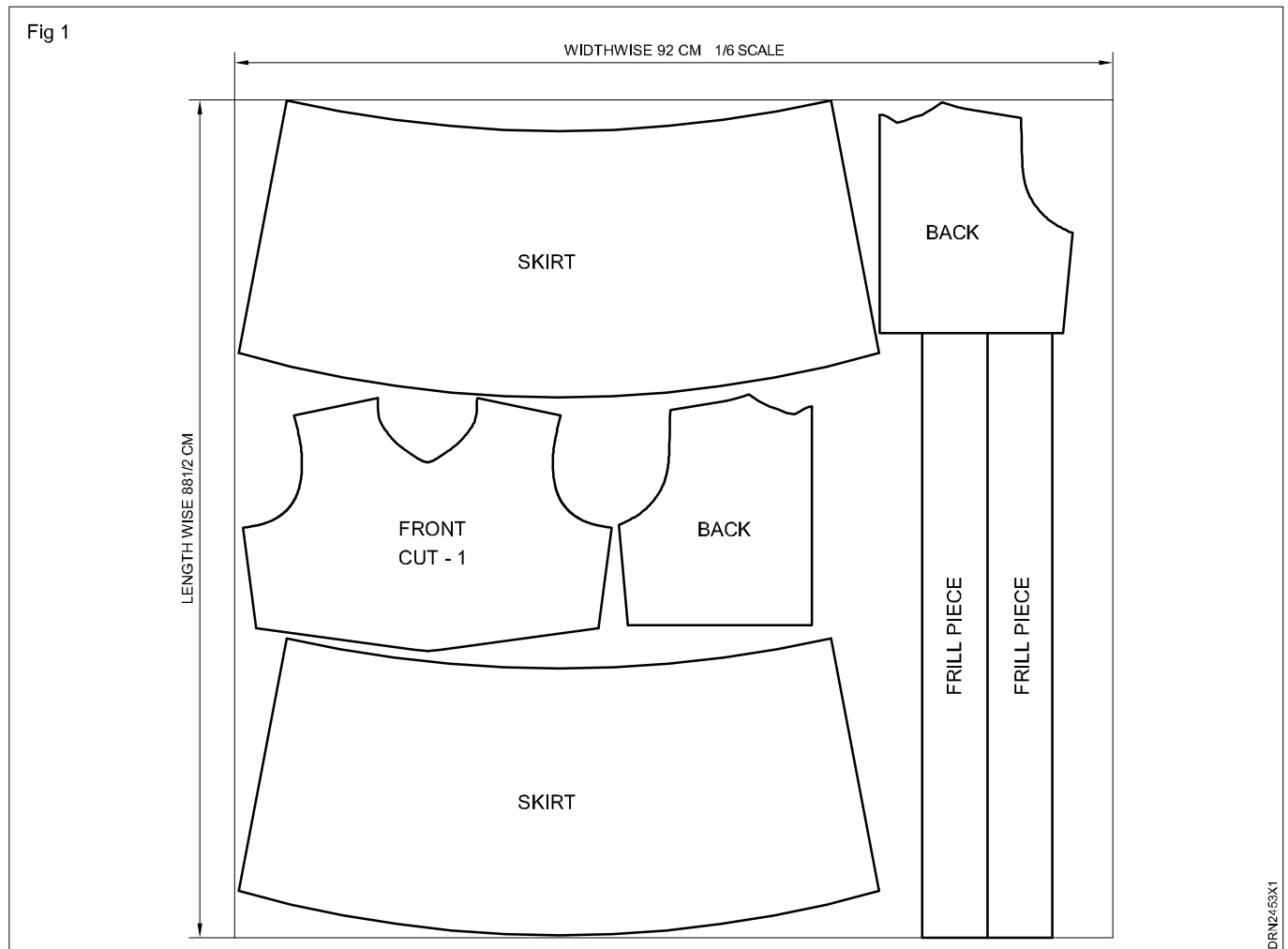
Fig 1



DRN2453/1

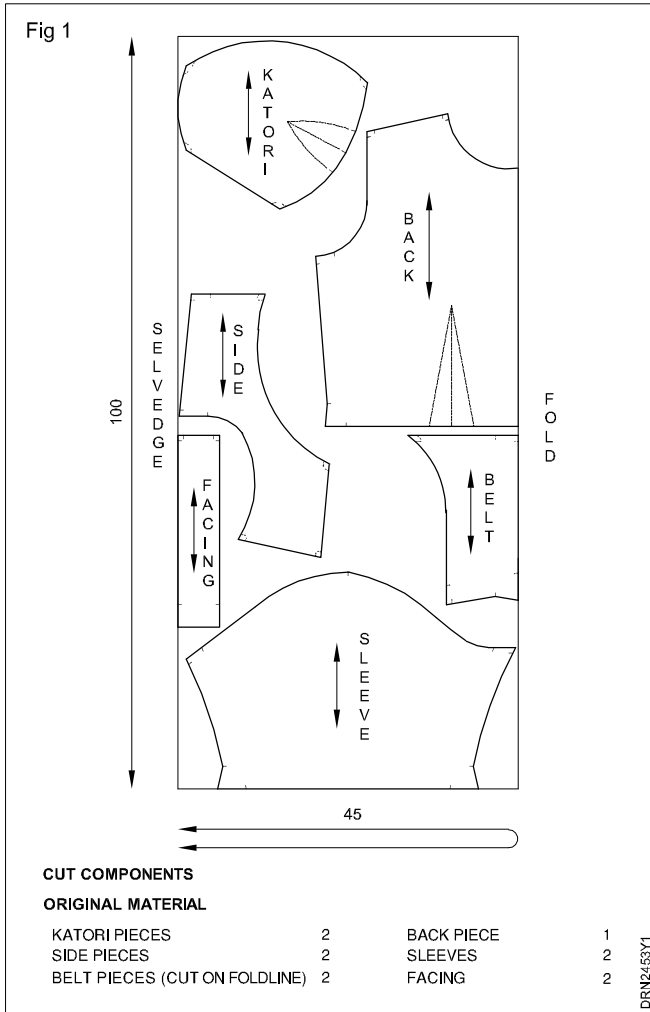
TASK 5: Make marker for a frock using plain fabric

- 1 Place the plain fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the frock patterns on the fabric economically.
- 3 Try different layouts and choose the best one which gives the least fabric consumption.
- 4 Mark the out lines of the patterns with the help of the marking chalk (Fig 1)



TASK 6: Make marker for a blouse using plain fabric

- 1 Place the plain fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the blouse patterns on the fabric economically.
- 3 Try different layouts and choose the best one which gives the least fabric consumption.
- 4 Mark the out lines of the patterns with the help of the marking chalk.



TASK 7: Make marker for a trousers using plain fabric

- 1 Place the plain fabric on the cutting table.
- 2 Make the fabric ready for layout and lay the trousers patterns on the fabric economically.
- 3 Try different layouts and choose the best one which gives the least fabric consumption.
- 4 Mark the out lines of the patterns with the help of the marking chalk.

