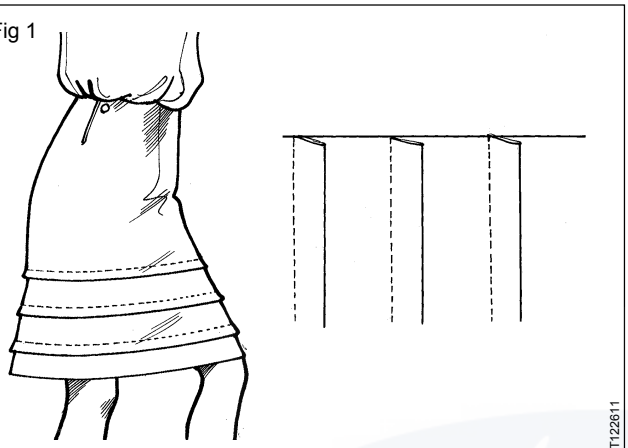
Tucks

Objectives: At the end of this lesson you shall be able to
- **name the function of tucks**
- **name the types of tucks and their features**
- **explain the construction techniques and stitching aids.**
- **explain the material required for stitching tucks.**

A tuck is a straight fold of fabric stitched on the grain evenly throughout the fold. (Fig 1)

Fig 1



It may appear similar to the pleat but some construction features are different. Tucks are stitched to the full length, whereas pleats are stitched on the top in the horizontal direction or only for a short length in vertical direction.

A tuck also has a fold line and a placement line and is stitched parallel to the foldline on its full length. A tuck is constructed similar to the knife pleat, i.e. in one direction (except the cross tucks). The beauty of a tuck depends on it accuracy. It will look good only if the width of tuck and the distance between the tucks are maintained evenly. The tuck width and the spacing between the tucks depends on the desired design effect and the thickness of the fabric. Special design effects can be achieved by setting the tucks groupwise.

Tucks are used mainly for decorative purpose. In some cases they are used for shaping the garment to the body (similar function as the dart) or used in children´s dresses to provide some allowance for growth. In some rare cases tucks are used to conceal joints in a garment when they are altered. The joint will appear on the wrong side of the garment while the decorative tuck will be visible from the right side.

Generally tucks are folded on the right side of the garment since they have decorative purpose. Only dart tucks used for shaping are folded on the wrong side for shaping.

Types of tucks:

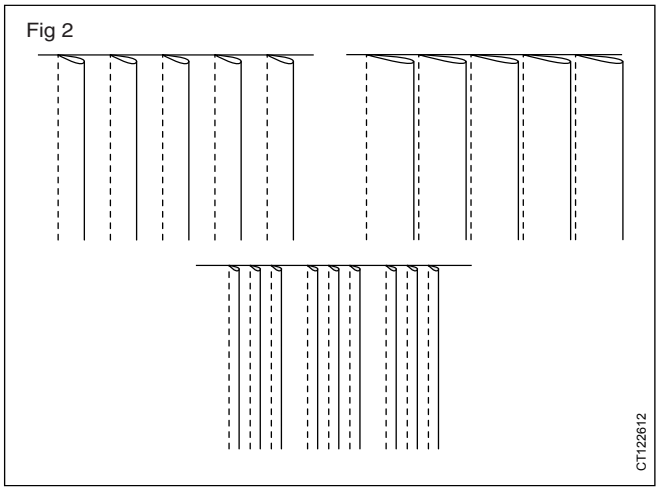
There are types of tucks -

1. Pin tucks - When the fold is very narrow, they are called Pin Tucks.
2. Spaced tucks -Spaced tucks are folds of cloth sewn at regular intervals.
3. Blind Tucks - Blind tucks are sewn so close together that the rows of stitching do not show on the outside. Each tuck overlaps the next covering, the previous row of stitching.
4. Shell Tucks - Narrow tuck with shell like scallop edge is called scallop tucks.
5. Corded Tuck - When a cord is placed inside the fold, is called corded tuck.
6. Released Tuck - When tuck stitching started from a point and end somewhere in middle called released tuck. This is to control small amount of fullness.

Tuck is a fold or pleat in fabric that is sewn in place.

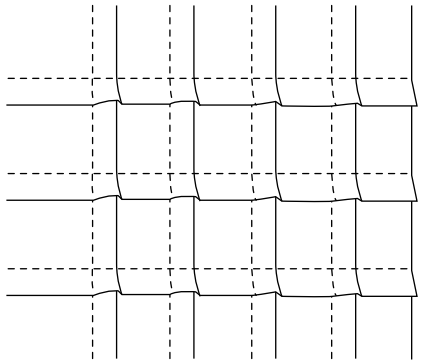
Plain tucks are formed in one direction.Width of tucks and the spacing can vary with the desired effect. If the space given between the tucks is equal to the depth of tuck, i.e. the fold of the tuck touches the stitching line of the previous one, they are called blind tucks. **Blind tucks** can be regarded as a variation of plain tucks. Another variation of plain tucks are the **pin tucks.** As the name implies they are of very narrow width, almost equal to a pinhead. Only thin fabrics are suitable for pin tucks. (Fig 2)

Fig 2



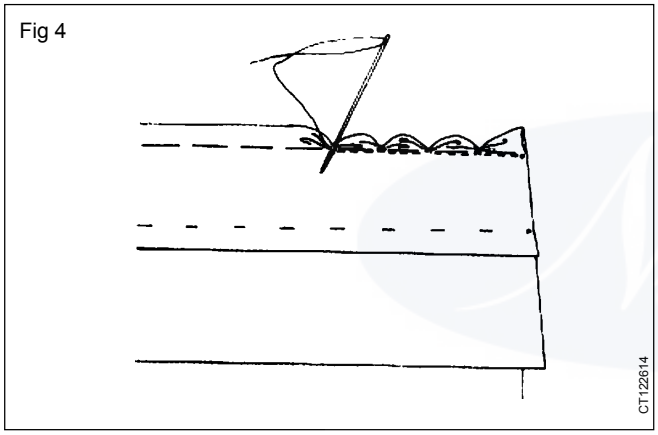
Cross tucks are stiched in both directions, vertical and horizontal. The lengthwise tucks are stitched first, then pressed in one direction before the widthwise tucks are stitched. (Fig 3)

Fig 3



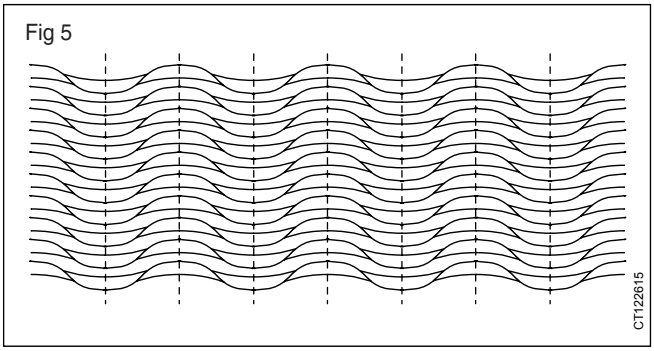
A tuck can be given a special decorative effect by making it into a **shell tuck.** This tuck has a scalloped edge. They can be formed on single edge or as multiple rows. Thin and medium weight fabrics are best suited for that purpose. (Fig 4)

Fig 4



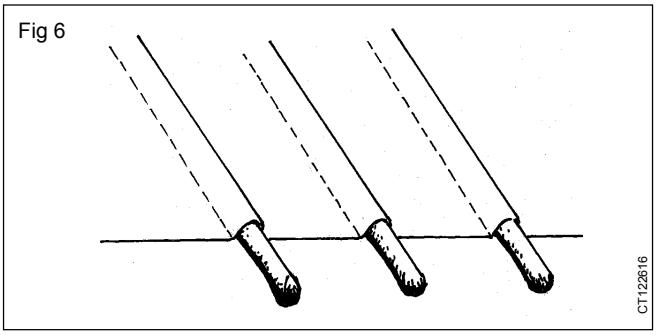
A group of blind tucks can be made to show a **scalloped effect.** For that purpose the fold of tucks should be a little wider. The tucks are top stitched perpendicular to the tucks first in one direction, then their folds are placed in the opposite direction to be topstiched again perpendicular to the tucks. This process is repeated on the full length of tucks at regular intervals. Thin and medium weight fabrics are best suited for shell tucks and scalloped tucks. (Fig 5)

Fig 5



Corded tucks are made by placing a cord inside the fold. This makes the tuck more prominent. A zipper foot is required for stitching this type of tuck. (Fig 6)

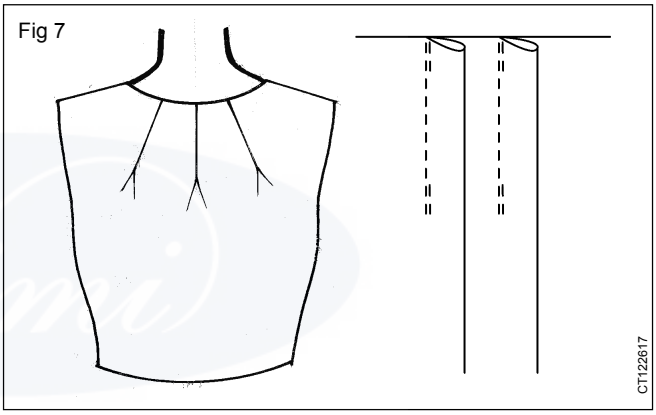
Fig 6



When tucks are used as a symmetrical element of decoration on the garment, the fold lines of either side should either face centre front or they should be directed away from the centre.

Dart tucks are used for shaping the garment. They can be formed on shoulder line, front and back waistline of the bodice and the front and back section of the lower garment. They are used to provide fullness and are usually formed on the wrong side of the garment. In rare cases they are formed on right side for decorative effect. (Fig 7)

Fig 7



The difference between darts and dart tucks can be described as follows:

– Dart tucks are of less width (approx. 0.5 cm).

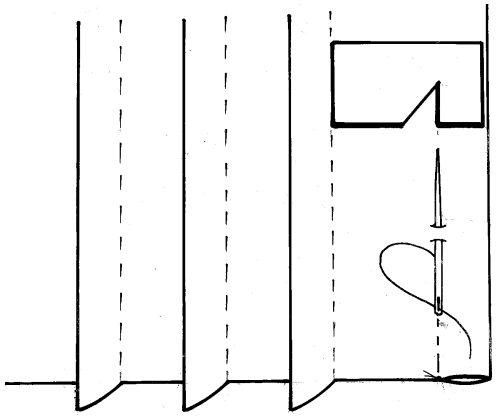
– To achieve the desired shape they are stitched in groups of 3 or 4.

– Dart tucks are of equal width on the full length while darts taper towards the end.

While stitching tucks some tools are useful:

A gauge made from cardboard helps stitching without marking the stitching lines. The length of gauge includes the width of tuck and the space between the tucks. The notch indicates the width of tuck. If the gauge is placed with the left edge on the stitching line of the previous tuck and the right edge is on the fold of the new tuck the notch will indicate the position of the stitching line for the new tuck. (Fig 8)

Fig 8



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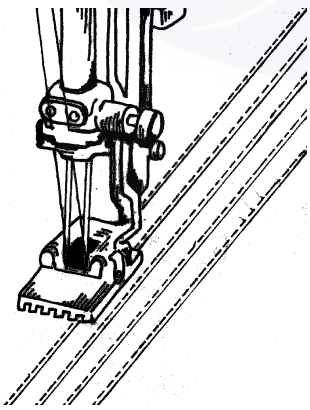
Tucker foot is a time saving device for making tucks up to 2.5 cm in width. It is an extra attachment inserted in place of the presser foot for treadle and motorised sewing machine. It helps to achieve an equal width of tucks and equal spacing between the tucks in one operation. The tucker foot is provided with two scales numbered from 0 to 8. The smaller scale near the needle will help to get a uniform width of tuck. The required width of tuck is set by moving a sliding plate with the help of a screw. While stitching, the fabric is guided between the two scales.

There is another screw near the needle to regulate the space between the tucks. Set the tuck scale first for the width of tuck, then the space scale is adjusted to a required space. The tucker foot does two operations at a time: it maintains the tuck width and the distance between the tucks even. (Fig 9)

Fig 9



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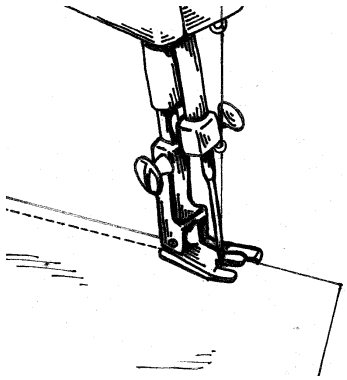
An edge stitcher is a special presser foot which is inserted in the machine in place of the normal presser foot. It is useful as a guide for stitching pin tucks, tucks with lace, piped seams and for self enclosed seams (e.g. french seam). It has a series of slotted guides where the folded fabric is inserted. The slots are of different widths for different edge stitch distance. (Fig 10)

Fig 10

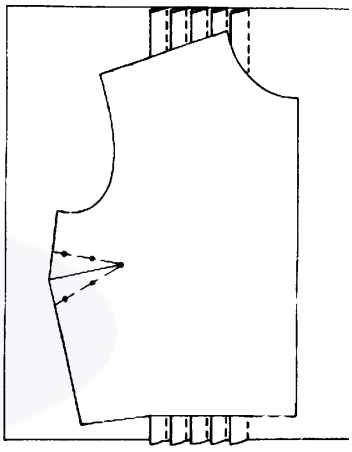


CT12261A

Tucks can be formed before or after the respective component of the garment is cut from the fabric.

The easier way is to fold the tucks before layout. The disadvantage with this method is that the edges have to be recut. It also increases the wastage of fabric. (Fig 11)

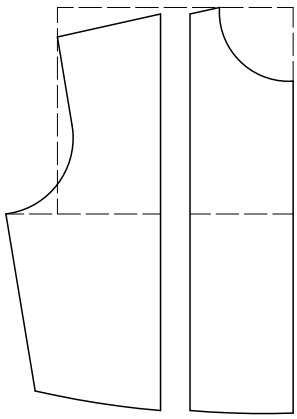
Fig 11



CT122612

With the other method the pattern is slashed and spread. This provides the extra space for folding the tucks after the component is cut. (Fig 12)

Fig 12



CT12261C

Calculation : Material requirement for tucks

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

- **calculate the material requirement for stitching tucks.**

The following terms and measurements are important for the calculation of tucks:

Example 1: A tucked component shall be of 39 cm tucked width while the gap between the tucks is of 1.2

cm. How many tucks are to be stitched, if the first and the last tuck is 1.5 cm away from the edge?

Solution

39 cm – (2 x 1.5 cm) = 36 cm (distance between the first and the last tuck)

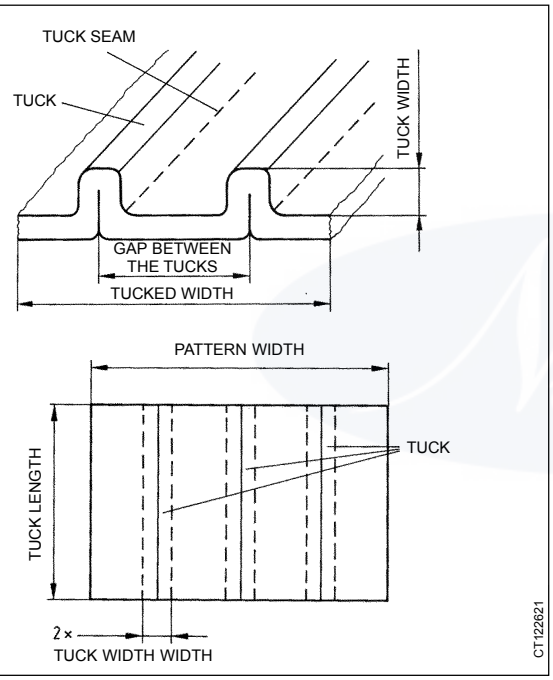
36 cm : 1.2 cm = 30 (gaps)

30 (gaps) + 1 = 31 (tucks)

The fundamentals for the calculation of tucks are similar to those for the calculation of buttons.

Example 2: A tucked component of 28 cm tucked width shall be prepared. There shall be a gap of 1.5 cm between the tucks and the tucks shall be of 2 mm width. The first and the last tuck shall be 2 cm away from the edges. What is to be the pattern width for the respective tucked component?

Fig 1



Solution

2 mm x 2 = 4 mm (material requirements for each tuck)

28 cm – (2 x 2 cm) = 24 cm (distance between the first and the last tuck)

24 cm : 1.7 cm = 14.1 ... (gaps) 15 gaps

15 (gaps) + 1 = 16 (tucks)

4 mm x 16 = 64 mm = 6.4 cm (for all tucks)

28 cm + 6.4 cm = 34.4 cm (pattern width)

24 cm : 15 = 1.6 cm (corrected gap between the tucks)

Explanation: If the number of gaps between the tucks so got is not a whole number, it must be rounded off (can be rounded off to the next higher or to the next lower number). But then – as seen above – the gap between the tucks as originally contemplated, has to be corrected by a fresh calculation.

Exercises

1 Calculate the number of tucks:

	Tucked width	Gap between the tucks	Distance of outer tucks from the edge
a	44 cm	2 cm	2 cm
b	24 cm	1.5 cm	1.5 cm

2 Calculate the missing values.

	Tucked width	No. of tucks	Gap between the tucks	Tuck width	Distance between tuck and left edge	Distance between tuck and right edge	Pattern width
a	30 cm	?	3 cm	1 mm	1.5 cm	1.5 cm	?
b	42.5 cm	?	1.5 cm	1.5 mm	2 cm	3 cm	?
c	28 cm	?	1.5 cm	1.2 mm	3 cm	3 cm	?

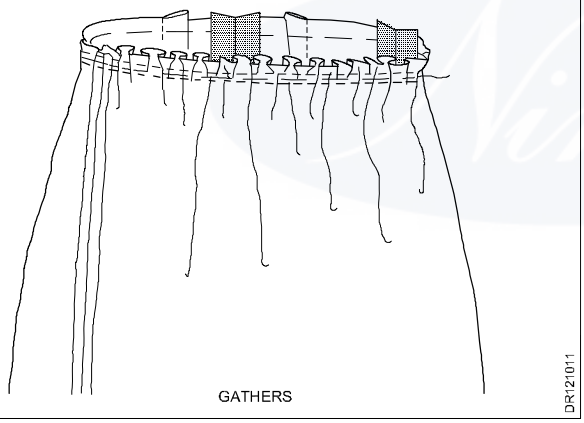
Gathers and Shirrings

Objectives: At the end of this lesson you shall be able to
- **state the features of gathers**
- **explain the importance of shirring.**

Gathers

Gathers are more popular method for controlling fullness in a garment. Gathering is one or two rows of stitching drawn up to form very tiny pleats in the fabric. It is important that the fullness must distributed evenly through out the entire area. If the fabric is very wide for gathering, work the gathering stitches in batches to prevent the thread snapping as it is pulled up. The gathered section of a piece of fabric often looks completely different from the actual fabric. Fabric is usually gathered to one-half (½) to one-third (1/3) the original width. The effect of gather may be soft and drapey, or crisp and billowy depending on the fabric. Gathers is done after construction seam have been stitched, seam finished and pressed. Gathering most often occurs in a garment at waist line, cuffs, yokes and children clothes etc.

Fig 1



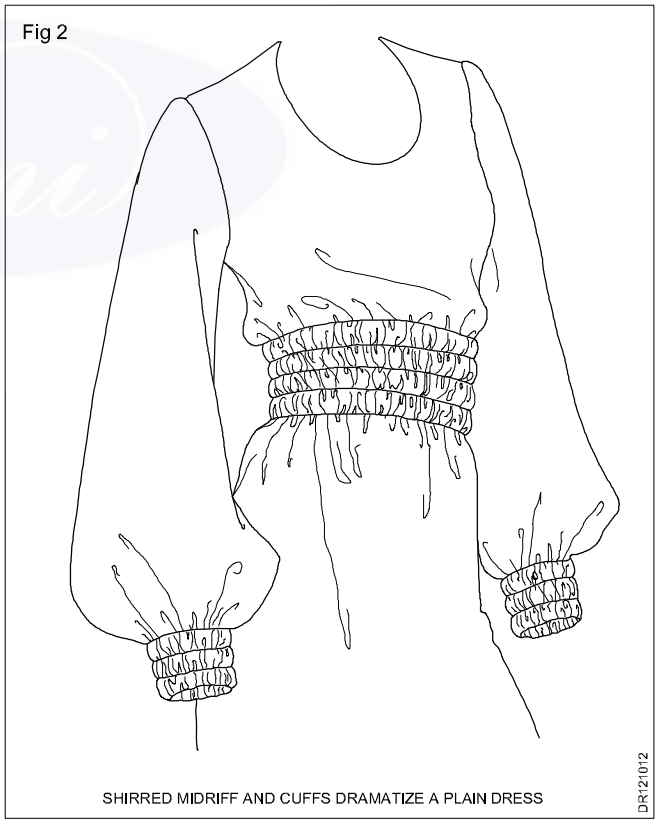
GATHERS

DR121011

Shirring

Shirring is the most popular method of controlling fullness in a garment. Gathering is one or two rows of stitching drawn up to form very tiny pleats in the fabric, but shirring is more than three rows of gathers. In shirring the fullness is distributed evenly throught the entire area. It is primarily a decorative way of controlling fullness. Shirring by machine is the easiest and quickest method than by hand. Shirring is formed with multiple row of gathering. Light weight fabric are most appropriate for shirring; they may be either crisp or soft voiles, crepes and jerseys are excellent choicer. Non iron fabrics are good because it is difficult to press shirring without flattening. Rows of shirring must be straight, parallel and equidistant. Pressing done with tip of iron directly into the fullness.

Fig 2



SHIRRED MIDRIFF AND CUFFS DRAMATIZE A PLAIN DRESS

DR121012

Frills and Ruffles

Objectives: At the end of this lesson you shall be able to
- **explain frills and ruffles.**

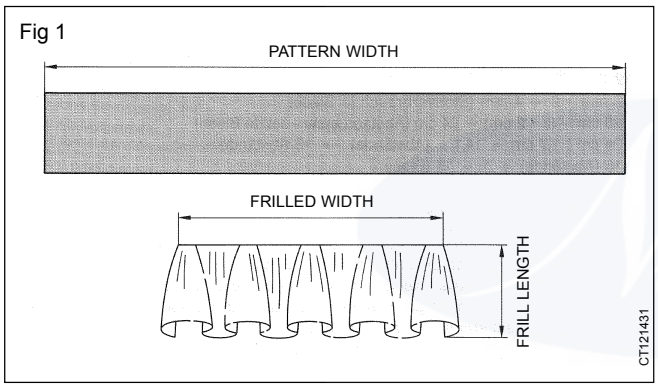
Frills are used for the purpose of decorating a garment. They can be used on hem lines, necklines and at any portion of the garment as per taste. The width of the frill may 1" to 3" and length should be cut as per the required amount of gathering. The length side should be cut along the warp way of the fabric. The gathered edge of the frill can be concealed in a seam. Frills can be constructed in a double layers and in circular shape. If the width of the frills are more than required then they are called as "Flounces".

Calculation: Material requirements for frills

Objectives: At the end of this lesson you shall be able to
- **calculate the material required for frills of different length and width.**

Terms and measurements which are important for the calculation of frills can be seen from the graphic:

Fig 1



Example: A frill of 1.80 m/1 m frilled width is required. The pattern width shall be frilled to 1/3 of its length.

a What is the measurement of the pattern width (length of the strip of material for the frill)?

b What is the material requirement under the following conditions?

Width of fabric : 1.10 m
Length of frill: 12 cm

Additional material for hem and allowance to join the frill to the garment: 3 cm

Solution

a 1.80 x 3 = 5.40 m

b 12 cm + 3 cm = 15 cm
5.40 m : 1.10 = 4.9 (5 strips)
15 cm x 5 = 75 cm

Since the number of strips is got only by rounding off to a full (whole) number the balance material generally is sufficient for the seam allowances which are required for joining the strips. If the number of strips is calculated as a full (whole) number or close to a whole number an additional strips would have to be calculated for the seam allowances.

In practice some material is saved while the material is frilled with less density. This is the reason why seam allowances for joining the strips are not calculated separately in the example above and also in the following exercises.

Exercises

1 Calculate the material requirements for frilled components (‚seam allowance" in the last column is meant for the hem of frill and for joining the frill to the garment).

	Pattern width	Width of fabric	Length of frill	Fabric allowance
a	440 cm	0.98 m	12.5 cm	2.5 cm
b	210 cm	1.20 m	8 cm	3 cm

2 A pattern width of 9.40 m is required for a frilled component. The width of fabric is 1.19 m. The length of frill shall be 7.5 cm; 2 cm are required for hem and joining the frill to the garment. How many cm of fabric are required for the frilled component?

3 A frill shall be attached to the hem of a skirt. For this a frilled component of 1.60 m frilled width is required. The pattern width is reduced to 2/5 of its length. What is the length of the strip of material?