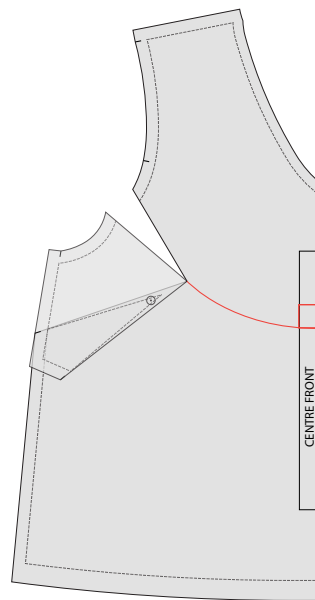
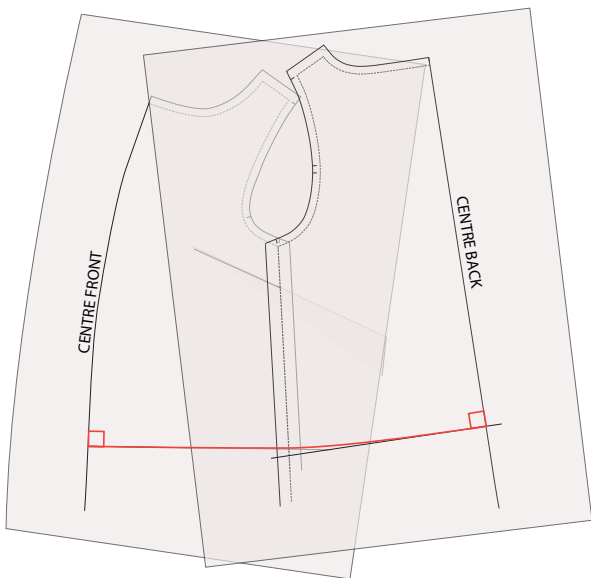
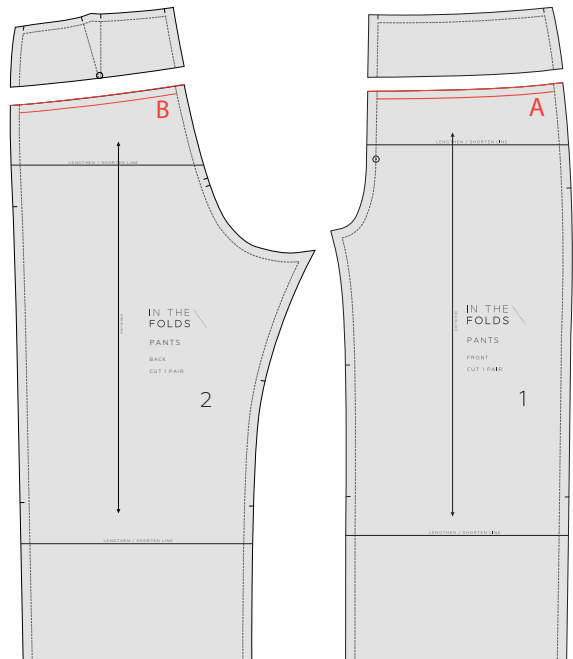
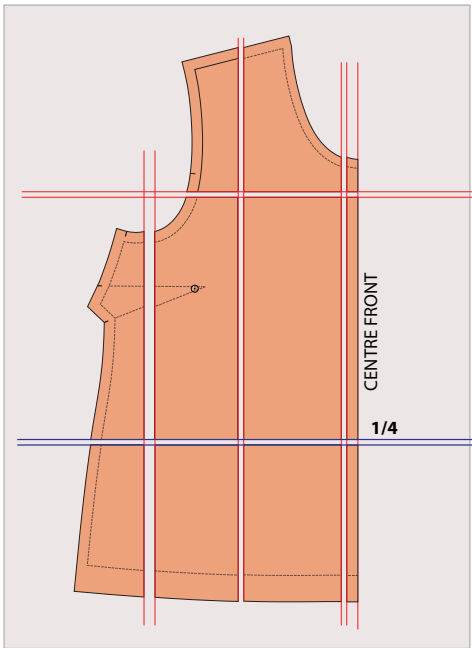


MAKE IT
YOUR OWN / CURATED ISSUE 35



SKILLS KIT

IN THE
FOLDS /

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ABOUT CURATED BY IN THE FOLDS

Make garments you will wear, love and cherish. Functional and beautiful pieces. Thoughtful and considered patterns. This is what **Curated by ITF** is all about.

Projects that help you learn more skills, instead of just making more clothes.

With our monthly subscription, we've selected patterns and pieces that contribute to your wardrobe, rather than overwhelm it. Projects are carefully selected each month to teach you new skills in a digestible way.

Sewing a handmade wardrobe you are proud of is about learning the skills and building on them over time. With these resources, you will build a resource and pattern library that you can refer to on your handmade journey, empowering you to sew a wardrobe that you love, one piece and one skill at a time. We are excited for you to join us.

THE PATTERNS

In the Folds patterns and resources are designed to inspire and encourage modern makers to create garments that are beautiful both inside and out. Through selected techniques and construction details, **In the Folds** aims to encourage thought-provoking and memorable making experiences - helping you enjoy each step of the process.

Techniques may differ slightly from the home sewing methods you are used to, but in some cases industrial finishes will give you the cleanest and most professional finish.

SLOW SEWING

In the Folds patterns are designed to include thoughtful details and interesting techniques so that you can enjoy the process of making the garment as much as the end result.

If we slow down and take in every stitch, we can better our skills, appreciate the amazing things we can do with our hands, understand the process more fully and create garments that will be worn, loved and cared for long into the future.

We'd love to see your work in progress. Find us on Instagram **@inthefolds** and tag your photos with **#CuratedByITF** and **#MakeltYourOwnSkillsKit**.

Happy drafting!

INTRO TO THIS RESOURCE

WHAT DOES IT MEAN TO MAKE IT YOUR OWN?

In the [previous issue of Curated](#), we showed you how to create a pattern from an existing garment in your wardrobe. In this issue we will be showing you how to make the pattern your own by adjusting the fit and the design to create the exact garment that you want and need. As a lot of us know from making our own clothes, often the fit you achieve when sewing a garment yourself is far better than ready to wear, so we encourage you to take your time to consider the desired fit before altering the design of the pattern.

DO I HAVE TO USE A SELF DRAFTED PATTERN?

If you haven't drafted a pattern from an existing garment, that's alright! You can use this resource with any pattern you have in your stash. This resource will teach you a range of pattern making techniques that you can use when working with any pattern.

HOW THIS DOCUMENT WORKS

Use the table on p 5 to think about the pattern you are working on. We have provided some prompts so you can consider what you would like to change about the pattern and have grouped the tutorials to keep things clear.

ENDLESS POSSIBILITIES

Once you learn some pattern manipulation techniques, you will realise that the possibilities for altering or adding to a pattern are truly endless. Don't let this overwhelm you - let it inspire your creativity! Spend some time thinking about the garments in your wardrobe and the pieces you love and why. Can you incorporate some of these elements into the patterns you are adjusting? What are the things you feel are missing in the garments you wear?

SKILLS LIBRARY

When designing our resources, it is our goal that over time you can build up a **Skills Library** to store on your computer or in your sewing space and access whenever you need. This provides a holistic approach to skill-building. With each Curated by ITF project, we will provide you with new resources that you can add to your **Skills Library**.

BE PATIENT

Making patterns your own is a great opportunity to learn patternmaking skills and build on these skills gradually over time. Like any new skill or hobby, getting good at it will take time. Part of the learning process is making mistakes, so remind yourself of that when things do not go to plan. Be patient and enjoy the process. That's what it's all about!

PATTERN ADJUSTMENTS

Use the **QUESTIONS** column to assess your pattern and then select the relevant tutorial from the resource.

AREA	QUESTIONS	TUTORIALS
SIZING	Is the garment too big or too small? Is it too big or too small in general or in one specific area?	- Make the pattern smaller or larger through grading p 31 - If sizing needs to be altered in one specific area, look at adjusting that area only, for example by doing a Full Bust Adjustment (FBA), broad / narrow shoulder adjustment etc. Refer to Curated Fit Kits for guidance.
GET BUST FIT RIGHT	Is there room for your bust in the garment? Is there pulling in the bust? Is there excess fabric at the bust? Is the dart in the correct position for your bust?	- To add or remove fabric at the bust you may need to do a bust adjustment. Tutorials for these techniques can be found in our other fitting resources. Refer to Curated Fit Kits for guidance. - Darts should point towards your BUST APEX POINT. The dart should create nice shaping for your bust, but not extend to your BUST APEX POINT, or beyond it. To alter dart position see p 45.
DART PLACEMENT	Is the dart in the correct position for your body, but you would prefer it in a different location?	Change dart location (p 56)
ADD / REMOVE DARTS	Would you like to add or remove darts? Would you like to transfer darts into panel lines?	- Remove darts by creating fullness in the hem (p 58) - Add darts to a bodice without darts (p 62) - Draft princess panels (p 70).
LENGTH	Is the length right? You may choose to alter the length because it is required to achieve a better fit, or because of a preferred style.	- See p 80 to alter the length of a pattern. - If you would like to crop the pattern, look to p 85.
VOLUME	Do you want to add volume to the garment?	- Remove side seam shaping and make a boxier fit (p 88) - Add volume using gathers (p 112) - Add volume using slash and spread (p 110)
SLEEVES / ARMHOLES	Would you like to remove the sleeves from a pattern? Would you like to lower the armholes on a pattern with or without sleeves?	- Make a pattern sleeveless (p 94) - Lower the armholes (p 96)

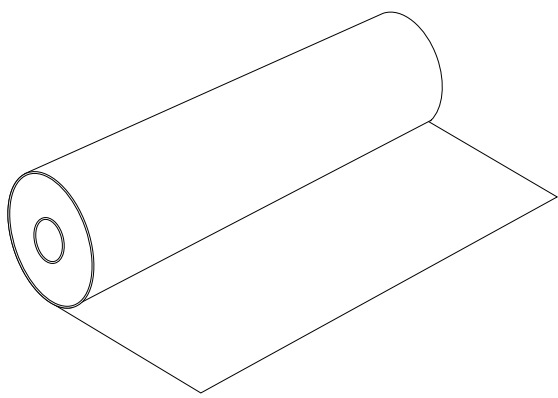
AREA	QUESTIONS	TUTORIALS
NECKLINE SHAPE	Would you like to change the shape of the neckline?	Create a V-neck (p 98) or draft an alternate neckline
WAIST POSITION ON PANTS / SKIRT	Is the waist on a pair of pants sitting too high or low on the waist?	Change the height of the waistline (p 102)
PANEL LINES	Would you like to add a panel line?	- Add a horizontal panel line (p 68) - Princes panel variations (p 75) - Use darts to create a curved yoke seam on a bodice (p 77)
CHANGE FINISHING METHOD	Would you prefer the neckline or armhole to be finished with a facing instead of bias binding? Would you like to draft a hem facing?	- Draft a facing (p 115) - Draft a hem facing (119)

TOOLS + TECHNIQUES

As you learn to make adjustments or draft sewing patterns, there are a number of techniques you will come back to over and over. Use these pages to familiarise yourself with the tools and techniques we use when drafting our patterns and then refer back to these pages when you are making alterations to a pattern now or in the future.

PATTERN MAKING TOOLS

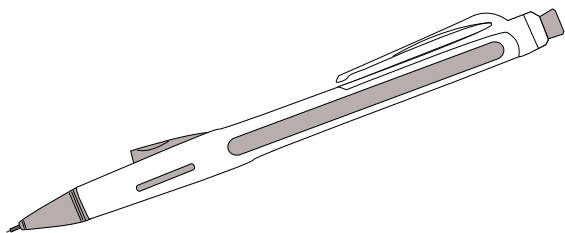
If you are planning on making adjustments to a pattern, or would like to start drafting your own patterns, there are a few things you are going to need. There are probably a million different gizmos and gadgets that you could buy to help you with your patterns, but at **In the Folds**, we like to keep things simple and we encourage you to do the same. Below are the tools we use over and over again.



PATTERN PAPER

When making adjustments to a pattern or hacking a pattern, you are going to need pattern paper. Many fabric shops stock pattern paper. There are many different options available, but when choosing we'd recommend:

- The paper be somewhat transparent. This is handy for tracing patterns and transferring lines from one pattern to another. This means the paper will be fairly lightweight and easy to fold (for things like folding darts) and won't take up much space if you are storing your patterns in envelopes.
- Think about the width of the paper. You may need to trace some large pattern pieces. It will make it easier if your paper is at least 50cm(20in) wide - although wider will be even better.
- Consider purchasing 'dot and cross' pattern paper. It has small dots and crosses printed on it so it makes drawing parallel and perpendicular lines a piece of cake. It is transparent enough that you can easily trace off patterns when you are making changes. Dot and cross is our go-to.



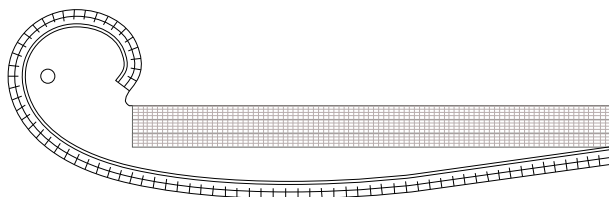
PACER PENCIL

Okay, a good old lead pencil will do just fine, but a pacer gives you the kind of accuracy you need when making patterns. Think about it, if you use a thick lead pencil it may add 2 millimetres to your patterns. This may not seem like much, but if you continue to trace your patterns in this way, over and over, eventually that 2 millimetres will lead to a lot! And an added bonus; a pacer normally comes with an eraser on the end.



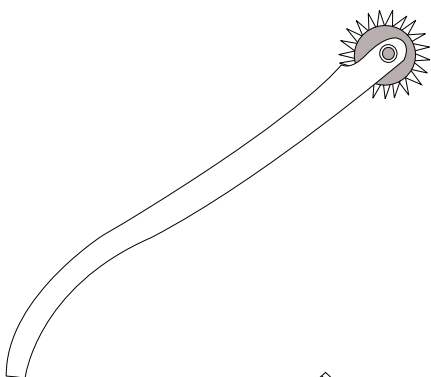
GRADING RULER

Another pattern cutting necessity is a ruler. Any ruler will do, but if you would like to make your life easier, invest in a grading ruler. A grading ruler is long (so you can draw nice long lines in one go), transparent (great for adding seam allowance) and flexible (perfect for measuring and marking curves).



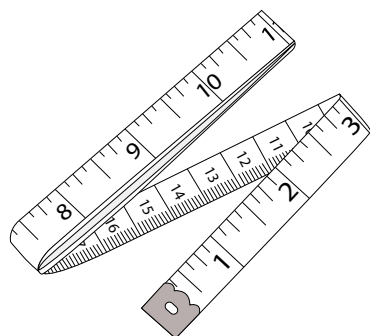
FRENCH CURVE

A French curve is a handy tool for drawing necklines, armholes, side seams, waist lines and sleeve caps (and any curve a pattern has for that matter). If you find it tricky to draw smooth curves, this might just be the tool you need in your patternmaking toolbox! Another option for curves is a Patternmaster.



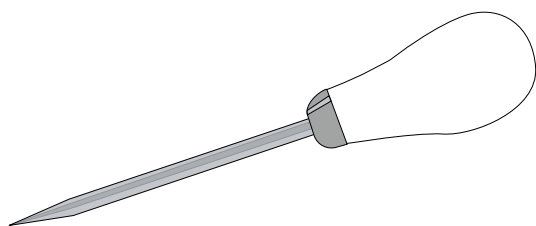
TRACING WHEEL

Tracing wheels are used for tracing patterns (if your paper isn't transparent) or if you are tracing onto card. It is also used for transferring lines, markings, dart shaping and notches to a pattern.



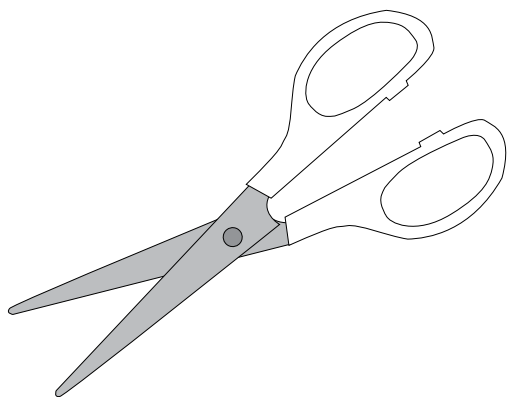
TAPE MEASURE

A dressmaking tape measure is needed for taking body measurements. It is also handy for measuring long or curved seams.



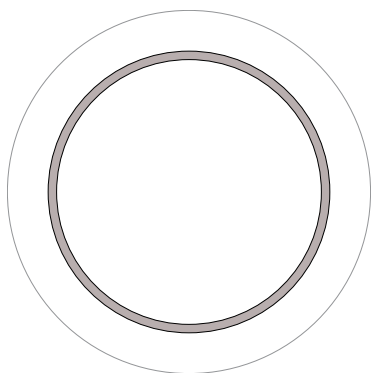
STILETTO / AWL

A stiletto (also known as an 'awl') has a nice sharp point that is great for making drill holes. It is also used for keeping the pattern in the right place when using the pivot technique to eliminate a dart or to add volume. It is also used when walking a seam to check and true a pattern.



SCISSORS

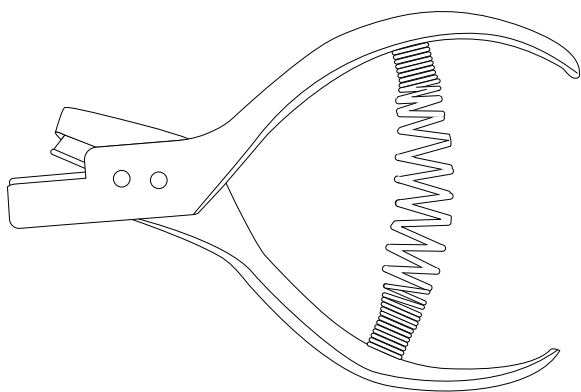
Get some scissors specifically for cutting paper and keep them separate from your fabric cutting scissors.



MASKING TAPE

Masking tape is another essential for us at **In the Folds**. You will need it when making alterations to a pattern (like lengthening or shortening) as well as 'growing on' small changes. We prefer masking tape to regular sticky tape as you can draw lines over it and it comes off more easily if required.

If you prefer clear tape, magic tape is a great option as it is easy to remove.



PATTERN NOTCHER

A pattern notcher is used to cut notches on a pattern. It makes 6mm ($\frac{1}{4}$ in) deep cuts in to the edge of patterns, which show you where to cut notches in fabric.

Pattern notchers are not essential to pattern drafting, but do make notching your patterns quick, easy and accurate.

PATTERN MAKING TECHNIQUES

TRACING PATTERNS

WHY TRACE A PATTERN?

Tracing a pattern refers to transferring a pattern to a separate piece of pattern paper or card rather than cutting the original pattern. The main reason to do this is so that you will always have the original pattern to refer back to. Other reasons why it may be a good idea to trace a pattern:

- You can transfer the pattern onto a paper / card that you prefer working with. For example, if you don't like how delicate tissue paper is, you can transfer the pattern onto something sturdier.
- It allows you to use the original pattern in more than one size.
- It means that you can trace just the size/s you need if you have printed all the sizes in the pattern. This can save confusion when there are intersecting lines and markings.

WHAT PAPER TO USE

There are countless pattern paper options and it will depend on your preferences and what you have access to. Consider:

- Dot and cross paper (this is our preference here at **In the Folds**)
- Swedish tracing paper
- Plain pattern paper
- Tracing paper
- Some people use mid-weight interfacing (the type that doesn't have glue on it)
- Wide roll of brown kraft paper

HOW TO TRACE A PATTERN WITH TRANSPARENT PATTERN PAPER

1 Lay the pattern out on a large flat surface.

2 Place the pattern paper on top of the pattern piece. Hold paper in place with pattern weights (if you don't have pattern weights, canned food works well).

3 Take a pacer pencil and a ruler and trace around the outline of each pattern piece. Go slowly and trace carefully. Be sure to transfer the grainline and all pattern markings, such as notches, darts and drill holes.

In the Folds patterns include both cutting and stitching lines so that it is easier to make adjustments to the patterns, but it is up to you if you want to trace the stitching line as well as the cutting line.

4 Add the name of the pattern, the size/s you traced, the pattern piece name and cutting instructions.

5 You are ready to cut out your pattern.

HOW TO TRACE A PATTERN WITH NON-TRANSPARENT PATTERN PAPER

- 1** You will want to use a self-healing cutting mat or a flat surface you don't mind marking up underneath your pattern.
- 2** Place the blank pattern paper on the flat surface.
- 3** Lay the pattern on top of the paper, making sure the piece you are going to trace is not hanging over the edge of the paper or table.
- 4** Roll the tracing wheel around the pattern on the size you want to use, making sure to transfer the grainline and all pattern markings.
- 5** Remove the pattern piece and carefully trace around your markings with a pencil. It's a good idea to use a ruler on straight sections. If you have one, a French curve is helpful for curved lines.
- 6** Add the name of the pattern, the size/s you traced, the pattern piece name and cutting instructions.
- 7** You are ready to cut out your pattern.

TRACING A PATTERN ONTO CARD

When working with a pattern block, it is a great idea to transfer the pattern onto card. This way the pattern can act as a "master" pattern that you can refer to over and over. There are two ways you can do this:

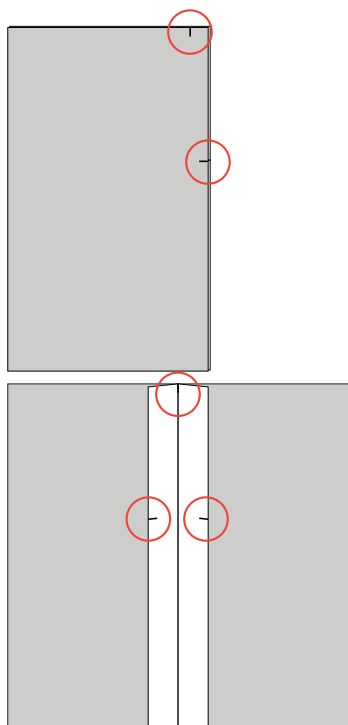
- Use weights and a tracing wheel (more info above)
- Glue the paper pattern onto the card and then cut out

BENEFITS OF HAVING YOUR BLOCK ON CARD

- Quick and easy to trace a copy - you can just trace around the outside edge
- Card is stronger than paper so it will last longer
- Makes it clear which pattern is your completed / final pattern

Tip

Depending on what you plan to use your block for, you may choose to remove the seam allowance before transferring the block onto card. Traditionally, pattern blocks do not include seam allowance so that you can quickly and easily trace a copy and make changes to the design without worrying about seam allowances getting in the way. Think about what you plan to use your block for and then decide if having seam allowance on your block will be helpful to your workflow.



WHAT IS A NOTCH?

A notch is a small line on a pattern (or sometimes a triangle) that indicates where you should make a small cut in the fabric to help guide you when you are sewing.

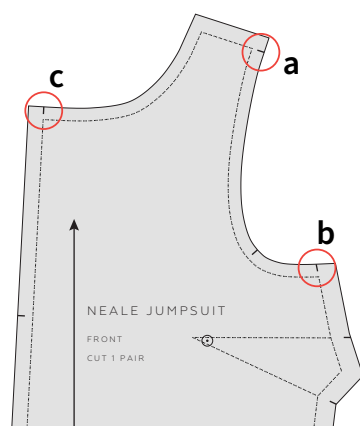
Notches are used to indicate seam allowance, dart arms, the location of design details, such as pleats, tucks, gathers, hems and pockets. They can also be used to indicate key points on the pattern, such as the centre front and centre back.

Notches are also used to indicate balance points. Balance points are points on a pattern that help you sew the right pieces together, as well as help you when you are sewing long or curved seams. It is a good idea to understand notch positioning as sometimes, when making alterations to patterns, you may displace a notch and need to put it back. When altering patterns significantly you may also want to add additional notches to help you when you are sewing the garment.

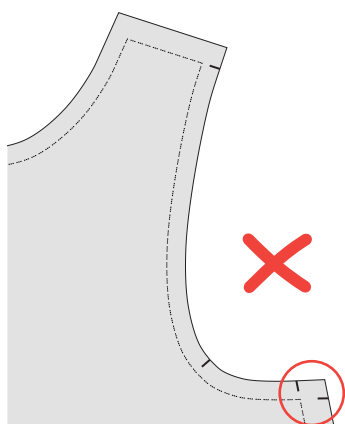
WHERE TO PLACE NOTCHES

SEAM ALLOWANCE NOTCHES

Start by using notches to indicate seam allowance. This can be really helpful if you are using various seam allowances and struggle to remember what seam allowance is applicable where.

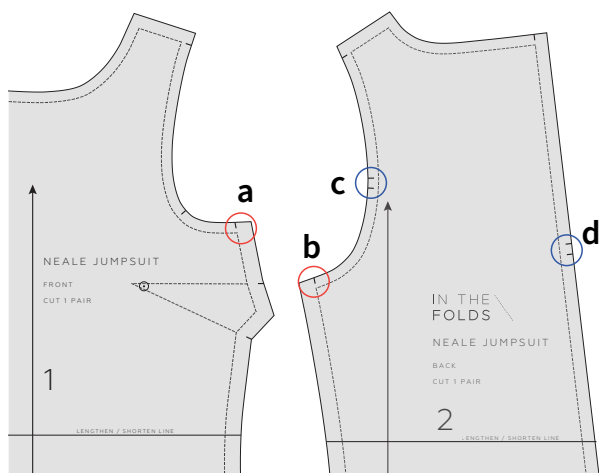


You will see in the example that we have used a notch to mark the seam allowance on the shoulder seam **(a)**, side seam **(b)** and centre front seam **(c)**. You don't need to mark the seam allowance at both ends of the seam. Once you start sewing the seam you will be using the lines on your sewing machine foot plate as a guide. Notches are used in the same way when indicating hem allowance.



Things to consider when marking seam allowance / hem allowance notches:

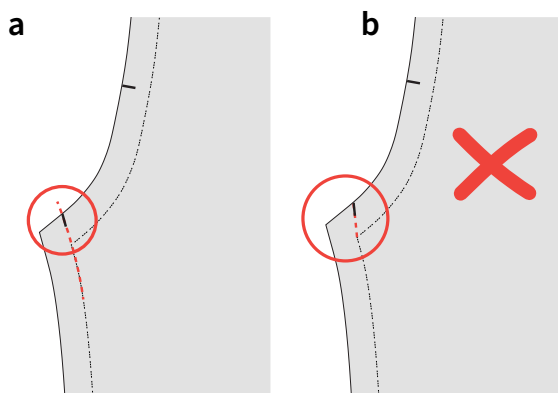
- Consider the order of construction when positioning your notches. For example, normally you would sew the side seam of a garment from the top down, so it makes sense to put the notch at the top of the seam and not the bottom.
- When marking seam allowance notches, you want to avoid notching two sides of the same corner. This can weaken the pattern and the fabric.



- Put notches in the same place on corresponding pattern pieces, so that when you join the pieces, the notches will match. For example, when putting a notch on the side seam of the front pattern piece **(a)**, put it in the same position on the back **(b)**.

DOUBLE NOTCHES

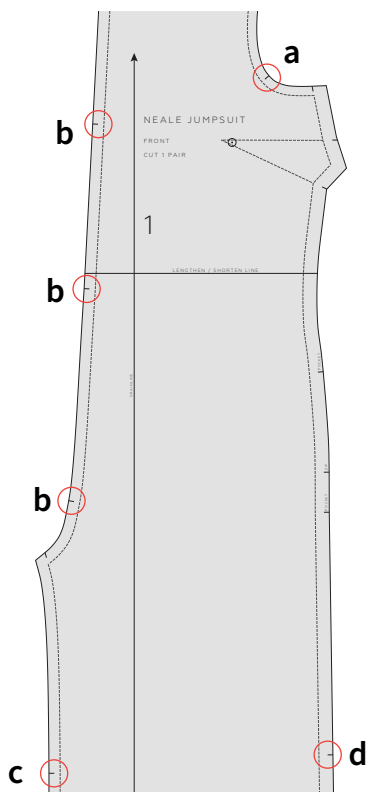
A double notch generally indicates the back of a pattern piece. For example, a double notch is used on a sleeve cap to indicate where the sleeve cap meets the back armhole. In the image, you can see that a double notch is used to indicate the centre back seam **(d)** and the back armhole **(c)**.



HOW TO MARK SEAM ALLOWANCE NOTCHES

a Extend the STITCH LINE to the CUT LINE, following the shape of the seam. Mark the notch with a **6mm (1/4in)** long line at the point where the line hits the CUT LINE.

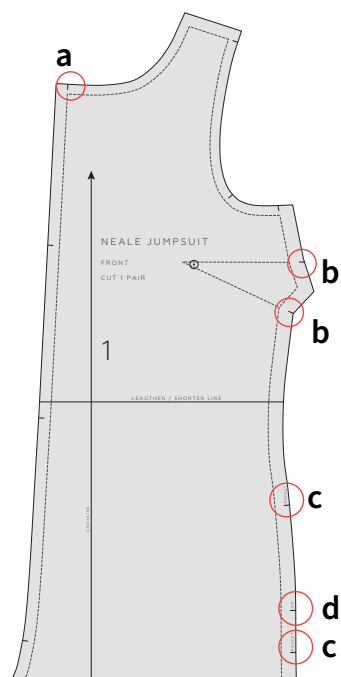
a As you can see in the illustration, if the line doesn't follow the STITCH LINE, the notch wouldn't be in the correct position.



BALANCE NOTCHES

Balance notches are notches that indicate which seams match together and which way pieces go. Balance notches also assist when easing pieces together, or sewing very long seams.

In the example, you can see that a notch has been used on the armhole to indicate where it will match with the FRONT FACING **(a)** - single notches are used on the front armhole and double notches are used to indicate the back armhole. Notches are used down the centre front seam **(b)**, inner leg seam **(c)** and side seam **(d)** to ensure that you do not stretch these seams and to indicate which pieces are joined. Balance point notches can be placed where you like, but consider what will be most useful when sewing.



NOTCHES FOR POINTS OF INTEREST

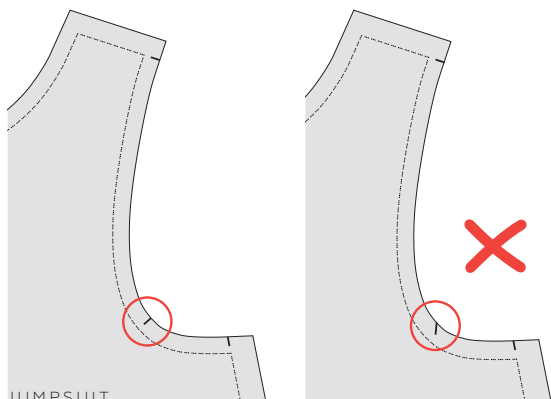
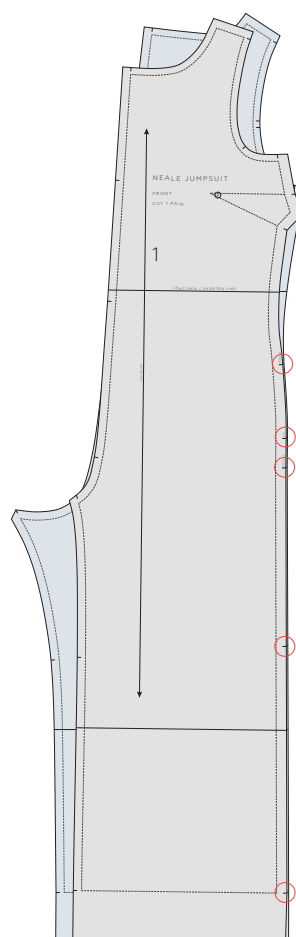
Use notches to indicate points of interest such as:

- Centre front / centre back of pattern (**a**)
- Dart arms (**b**)
- Pocket position (**c**)
- Zip length (**d**)

TRANSFERRING NOTCHES BETWEEN PIECES

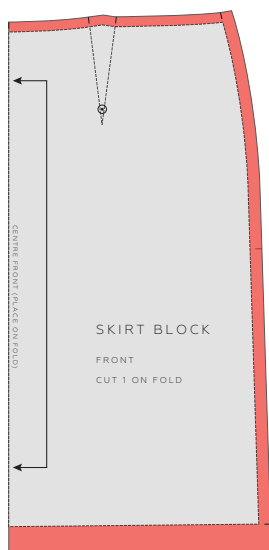
To mark notches on your own pattern, or an altered pattern, mark them on one pattern piece first. Transfer to corresponding seam by matching seams together as if they have been sewn (see p 22). Transfer the notches onto the other pattern piece with a tracing wheel, or notching through both layers with a pattern notcher.

In the example you can see that the FRONT and BACK pattern pieces are aligned at the hem, but not at the top of the side seam. This is because of the dart. When the dart is sewn, these seams will be the same length and will match at both the top and the bottom. By lining up the bottom part of the seam, the notches can be transferred from the FRONT [1] to the BACK [2].



NOTCHES ON CURVES

Notches are really helpful when sewing curves. When marking notches on a curve, make sure you square out from the STITCH LINE to mark your notch on the CUT LINE.



WHAT IS SEAM ALLOWANCE?

Seam allowance is the space between the STITCH LINE and the raw edge of the fabric (marked in red on the illustration). The seam allowance varies throughout patterns, depending on the seam. For example, on a skirt block, larger seam allowances are required for centre back and side seams. Smaller seam allowances are required for curved seams such as the waist line.

When hacking or altering a pattern you will at times need to remove seam allowance and then add it back on. If you are adding seam lines or details you will also need to add seam allowance.

HOW MUCH SEAM ALLOWANCE TO ADD

The seam allowance required will have a lot to do with the fabric you are using, and how you will be finishing the seams. For example, if you are making a silk chiffon top, it is best to use a narrow seam allowance, so you are not left with bulky seams that show through the fabric on the right side. A silk chiffon top is a delicate piece of clothing, that is not worn everyday and is normally hand washed, so it can afford to have smaller seam allowances. If you are making a pair of pants or a coat, you need seams that are stronger (particularly in places where tension is put on the seams - such as the crotch of pants) and therefore need a seam allowance that is wider than that you would use for a chiffon top.

You can select the amount of seam allowance according to your preference, or you can follow what we use here at In the Folds. If hacking a pattern, it is best to use the seam allowance already used in the pattern to keep things consistent. A chart of standard seam allowances can be found on p 17 that you may like to use as a reference.



TOOLS REQUIRED

The easiest way to add seam allowance is with a long transparent grading ruler. Not to worry if you don't have one though, you can just use an ordinary ruler and mark the seam allowance width at intervals along the seam and then connect all the points.

The reason that a grading ruler like this is handy is because it has the most common seam allowance increments already marked on it. All you need to do is position the corresponding line on the ruler with the STITCH LINE on the pattern and you can add seam allowance with minimal fuss. More about how to do this can be found on p 18.

STANDARD SEAM ALLOWANCE CHART

SEAM	SEAM ALLOWANCE	REASON
SIDE SEAM / SHOULDER SEAM / CROTCH SEAM	1.2cm - 1.5cm (½in - ⅝in)	This gives added strength to a seam that requires stability. You can always increase the seam allowance if you think you will be wanting to let out (loosen) the garment in the future - although this will depend on how much shaping there is in the seams. Curves are more difficult to sew with a larger seam allowance. Most In the Folds patterns use a 1.2cm (½in) seam allowance for side seams.
PANEL LINES / POCKET BAGS	1cm - 1.2cm (⅜in - ½in)	Panel lines are often just a design feature, so may not need the extra width given to the side seam (but in some cases may need it). If the seam lines are curved, you are better off with a narrower seam allowance. In the Folds patterns generally use a 1.2cm (½in) seam allowance for panel lines. Due to the curved nature of pocket bags, pocket bags use the same seam allowance as panel lines in In the Folds patterns.
ARMSCYE / ARMHOLE / SLEEVE CAP	1cm - 1.2cm (⅜in - ½in)	The seam allowance depends on the design of your sleeve or armhole. It can be difficult to sew in a sleeve and get a nice fit if there is too much seam allowance, due to the curve of the armhole. The seam allowance on the sleeve cap must be the same as the armhole seam allowance, as these seams will be sewn together. For sleeveless styles, In the Folds uses a 1cm (⅜in) seam allowance on the armhole. For styles with sleeves we use 1.2cm (½in).
WAIST EDGE	1cm - 1.2cm (¼in - ½in)	Waist edge seam allowance will depend on how you are finishing the seam - whether with a straight waistband, shaped waistband or waist facing. In the Folds patterns use a 1.2cm (½in) on this seam to make it easy to sew, whilst still providing the stability required in this area.
NECKLINE	6mm - 1cm (¼in - ⅜in)	The required seam allowance for a neckline will depend on the style of your garment - whether it is shaped, how it is finished, or whether or not it has a collar. You will often need quite a narrow seam allowance in this area. It can be difficult to get a nice shape around the curve of the neckline if there is too much bulk. In the Folds patterns use a 1cm (⅜in) allowance on necklines, although in industry, neckline seam allowance is usually 6mm (¼in).
CENTRE BACK	1.2cm - 2cm (½in - ¾in)	The centre back is often where a closure is located, such as a zip or buttons. For this reason, it can make things easier if you have a bit of extra seam allowance in this area to play with. In the Folds patterns generally use a 2cm (¾in) seam allowance in the centre back if there is a zip / closure.
HEM	1cm - 15cm (⅜in - 6in)	There is a huge range when it comes to hem allowance. It depends on the shape of the garment, the fabric you are using and the desired outcome. If you are making a sheer silk top you will want the smallest hem possible, while a heavy wool dress will require a larger hem allowance to add stability and weight to the hemline (in this case you may also consider adding a hem facing). With very large hems or for certain shaped garments, it is sometimes best to make a hem facing, rather than adding hem allowance to the pattern.

HOW TO ADD SEAM ALLOWANCE

1 Decide on how much seam allowance you will be adding (using the table on p 17 if needed). Find the corresponding line along the width of your grading ruler.

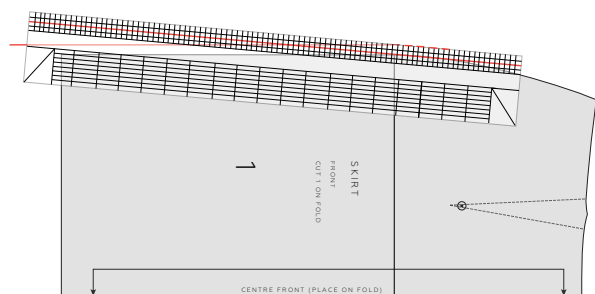
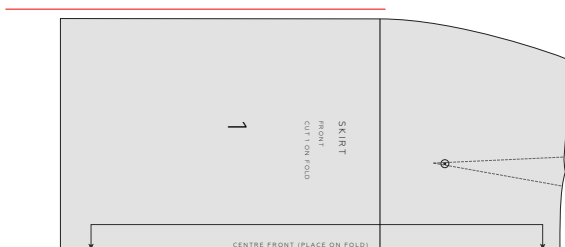
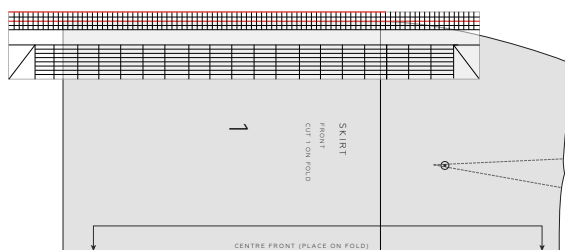
For the example, we will be using a basic skirt pattern to demonstrate how to add seam allowance.

START WITH STRAIGHT SEAMS

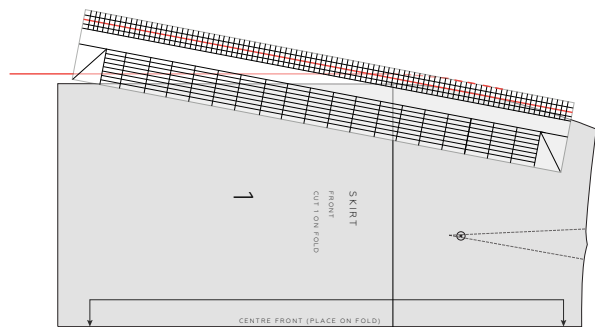
2 Lay the line on your ruler that corresponds to your desired seam allowance along the side seam of your pattern. It is much easier to work horizontally than vertically, so we suggest rotating your pattern piece.

With a sharp pencil, or pacer, draw in your seam allowance. Be careful to keep your ruler in place.

Extend the line past the original line by a couple of centimetres. This will help when you adding seam allowance / hem allowance to the other seams.



a



b

MARK BROKEN LINES FOR CURVES

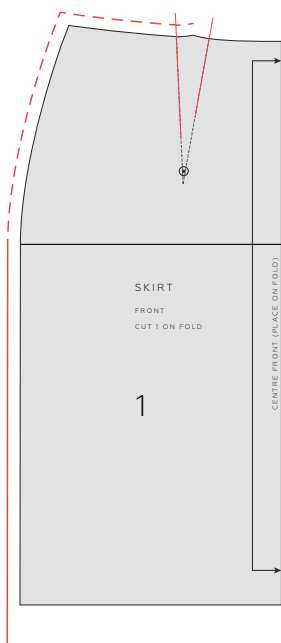
3 a If the seam you are adding seam allowance to is curved (which it is in the case of the hip shape here) you can mark the seam allowance with a broken line. Line up your seam with the ruler and draw a broken line.

b When your ruler no longer lines up with the edge of the pattern, pivot your ruler to your next point where it does align (every 1 – 1.2cm / $\frac{3}{8}$ in - $\frac{1}{2}$ in or so). Continue marking the seam allowance with a broken line.

For tight curves (such as a bodice neckline) mark your seam allowance guidelines closer together to ensure a smooth and accurate curve.

Continue pivoting the ruler until you have gone along or around the whole curve.

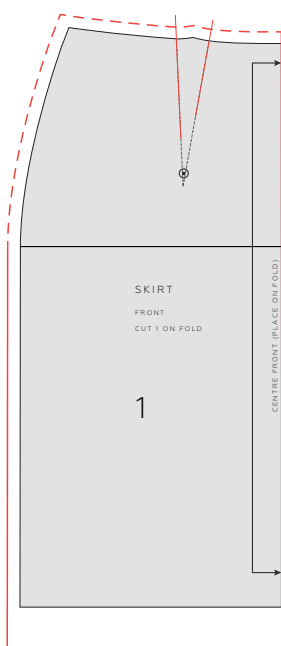
At In the Folds, we find this the easiest way to mark seam allowance on curves. Alternatively you can use a French curve that has seam allowance markings.



ADDING SEAM ALLOWANCE TO DARTS

4 When you have finished with one seam, rotate the pattern so that the next seam is now horizontal. When adding seam allowance to darts, extend both dart arms, by a few centimetres.

Use your ruler to follow the angle of the dart on both sides of the centre of the dart. Continue pivoting along the seam until seam allowance has been added.



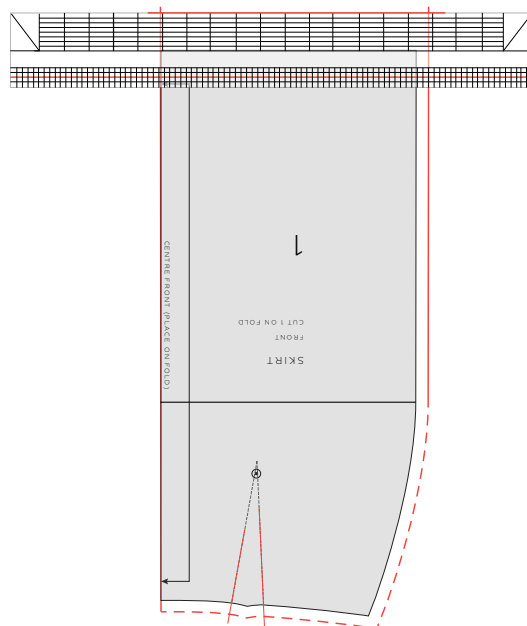
WHEN A SEAM DOES NOT REQUIRE SEAM ALLOWANCE

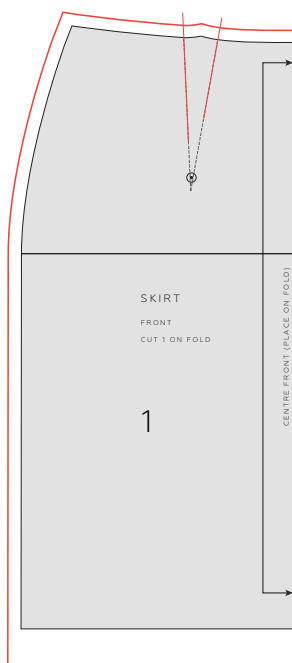
5 The centre front of this pattern does not need seam allowance, as it will be cut on the fold. When you have a seam like this, extend the line so that it intersects with the seam allowance markings on each end of the seam.

ADDING HEM ALLOWANCE

6 Add hem allowance in the same way. If the hem allowance required is wider than the width of your ruler, rotate the ruler and use it vertically. Mark points at each end and rule a line to create the hem line. If the hem is curved, use the method on p 18 to mark the seam allowance.

If the section of the pattern you are adding hem allowance to is not straight, you may need to change the angle of the hem allowance at the side seams. Look to p 21 for more info.





JOIN BROKEN LINES

7 When you have worked your way around the pattern piece, you will need to finalise the broken lines.

Draw in your curves by joining the broken lines to form smooth curves. You can do this by carefully pivoting your ruler or by using a French curve. A good way to check if your curve is smooth is, with the pattern flat on a table, crouch down and look at the curve at eye level. You will quickly see if there are any sharp points!

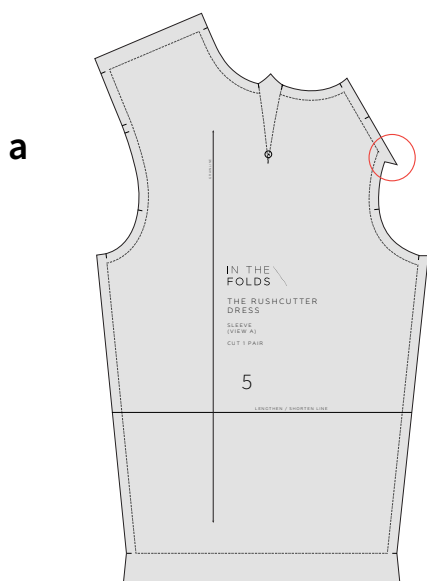
SEAM ALLOWANCE AT CORNERS + INTERSECTION POINTS

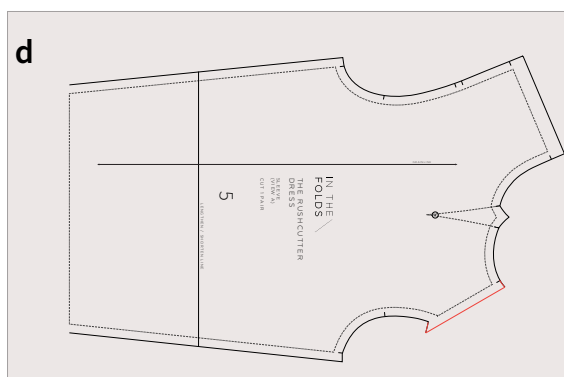
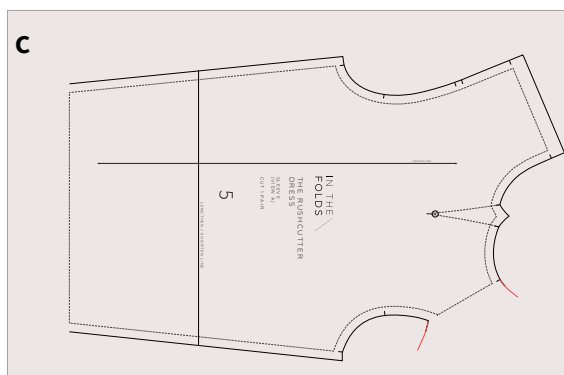
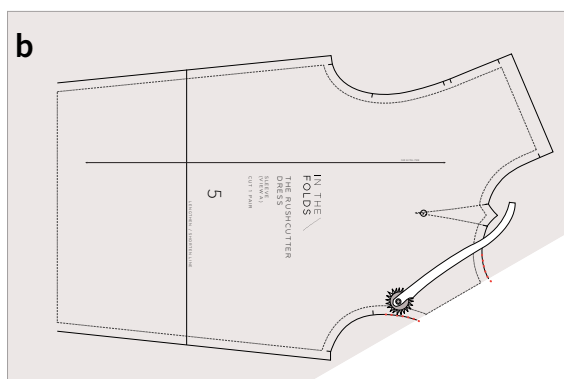
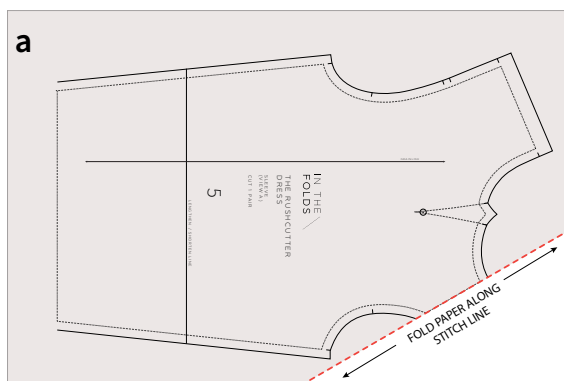
Sometimes you can just extend the lines from one seam to another and they will come to a corner that will sit correctly (like in the skirt example above). With other shapes - especially on points - you will need to adjust the angle or line of the seam allowance so that when the seam is sewn, the seam allowance sits flush with the edge.

a As an example, we will use the raglan sleeve from the Rushcutter dress. You will notice that at the seam where the sleeve joins the CENTRE FRONT PANEL [1] the seam allowance comes to a strange point.

The reason for this is, after this seam is stitched and then pressed open, it will be able to sit flush with the edge of the sleeve. This will help you get a lovely clean finish when you attach the sleeve to the armhole of the dress.

b If you were to just extend the seam lines, when the seam allowance was pressed it would not line up with the cut edge when the seam was stitched and pressed open.





HOW TO MARK SEAM ALLOWANCE AT INTERSECTION POINTS

a In the example we have added seam allowance to all the seams as usual. When we get to the seam that joins the sleeve to the CENTRE FRONT PANEL [1], we need to fold along the STITCH LINE. By folding along the STITCH LINE like this, we will be able to determine what will happen when the seam is stitched and pressed open. Remember to consider which way the seam allowance will be pressed when finalising corners on seam allowance.

b Take a tracing wheel and trace over the lines that indicate the seam allowance on either side of the seam for approximately 2-3cm (1in).

c Unfold the seam allowance and you will see that you have transferred the shaping of the seam lines. Join the dots that have been created by the tracing wheel.

d Complete the seam with a straight line at the correct width.

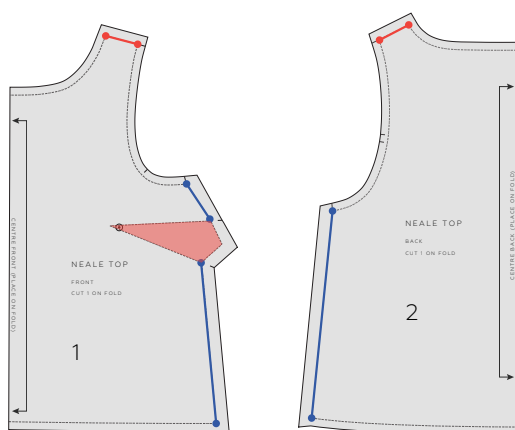
HEM ALLOWANCE WHEN GARMENT IS NOT STRAIGHT

e You will need to use this same technique when adding hem allowance to a garment that is not straight in the bottom section.

In the skirt example (p 19) the pattern piece is straight from the hip down, so the hem allowance can be straight. In the case of the Rushcutter sleeve, the sleeve is slightly tapered, which means the sleeve hem allowance will need to reflect this shape. This will allow the hem to sit flat when it's sewn and will not create bunching.

CHECKING + TRUING PATTERNS

If you have altered or created a pattern, it is really important that you check that your patterns fit together correctly before cutting your fabric. It may seem a bit tedious checking each seam, but taking a few minutes to check your patterns at this stage can save you cutting out incorrect patterns and wasting precious time and fabric.



CHECK SEAM LENGTHS

METHOD 1 - MEASURE SEAMS

To check that your patterns fit together correctly, you need to check that each seam is the same length as the seam it will be sewn to. For example, in the case of the **Neale top** (pictured), you need to check that the side seams and shoulder seams are the same length. To do this, you can simply take a ruler or tape measure and measure each seam on the STITCH LINE. Remember that the dart will be sewn, so this needs to be disregarded when measuring.

If you find that your seams are not the same length, look to p 26.

METHOD 2 - WALK SEAMS

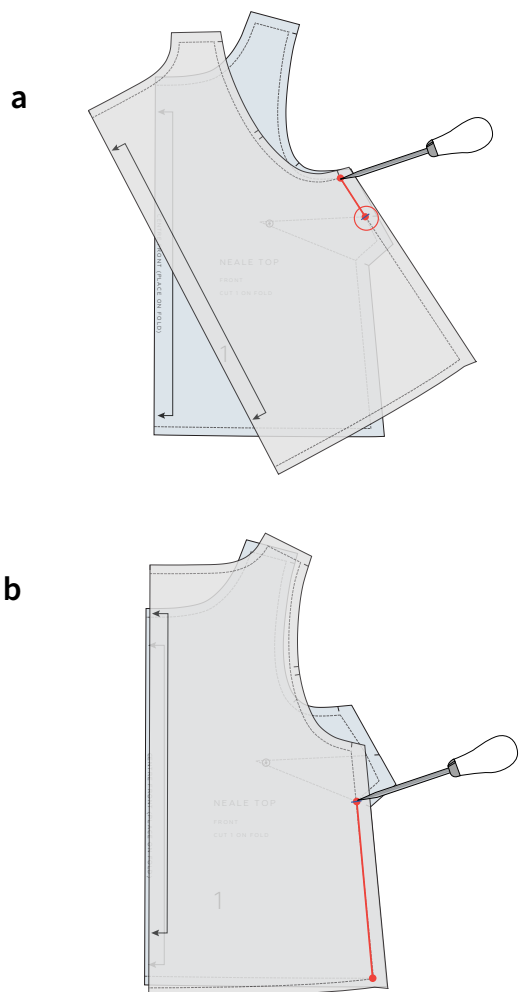
The other way you can do this (which is the method we prefer here at **In the Folds**) is to match up the seams as if you were sewing them and check that they are the same length. You need to line up the patterns with STITCH LINE on STITCH LINE.

CHECKING STRAIGHT SEAMS

a Line up the top of the seam, STITCH LINE on STITCH LINE, using a stiletto to hold the top of the seam in place. When you get to a detail, such as a dart, mark the position with a pencil or tracing wheel.

b Move the BACK pattern piece so that the point marked lines up with the bottom dart arm (as if the dart has been sewn). Hold in place with stiletto and check the remainder of the seam.

If you find that your seams are not the same length, look to p 26.

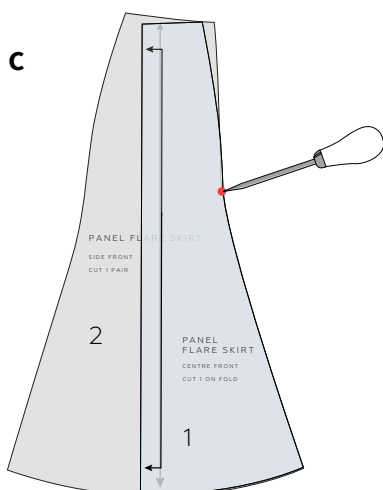
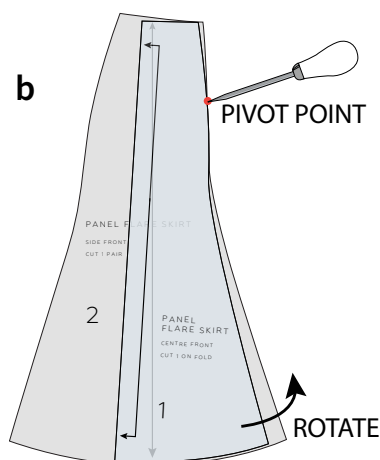
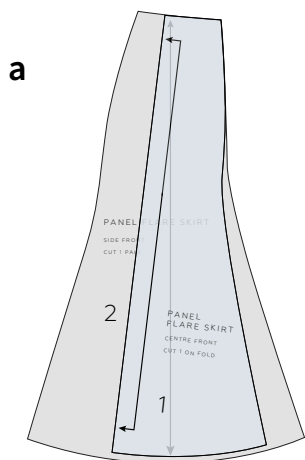


CHECKING CURVED SEAMS

When it comes to curved seams, the process of checking patterns is slightly different to when you check a straight seam.

With curves, you cannot simply lie one seam on top of the other as the curves won't be the same between pattern pieces.

For the example we are using a panel flare skirt. The pattern does not have seam allowance added yet. If your pattern has seam allowance, remember to place STITCH LINE on STITCH LINE as we are checking that our STITCH LINES work together, not the cut edges.



a Match the seams together at the top of the seam, as if you were sewing them (one on top of the other). You may need to flip one upside-down to line them up correctly.

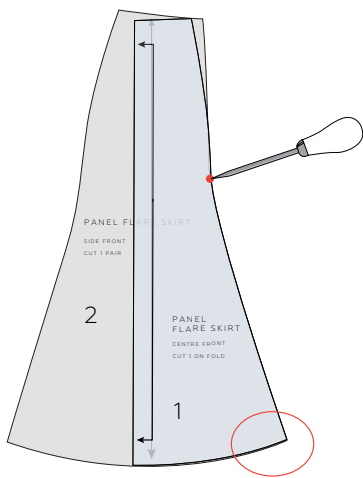
b You will need to pivot the pattern so that you can continue matching the seams. Take a stiletto/awl (or a sharp pencil or pin) and insert it at the point where the seams diverge. This will allow you to keep this point together, but also allow you the movement you need to match the remainder of the seam. When it is in place, you should be able to rotate the top pattern piece, without moving the pattern underneath. Rotate the piece until the seams match together again.

c Move the point of the stiletto to the next pivot point (where the seam lines diverge again), and rotate the pattern until the seams align again. Continue until the whole seam has been checked.

Beginner tip

If you also need to mark notches on a curved seam, mark them at the same time as you check the seam length. Use a tracing wheel to mark a notch through both pattern pieces, and then clip them with your pattern notcher or scissors.

d

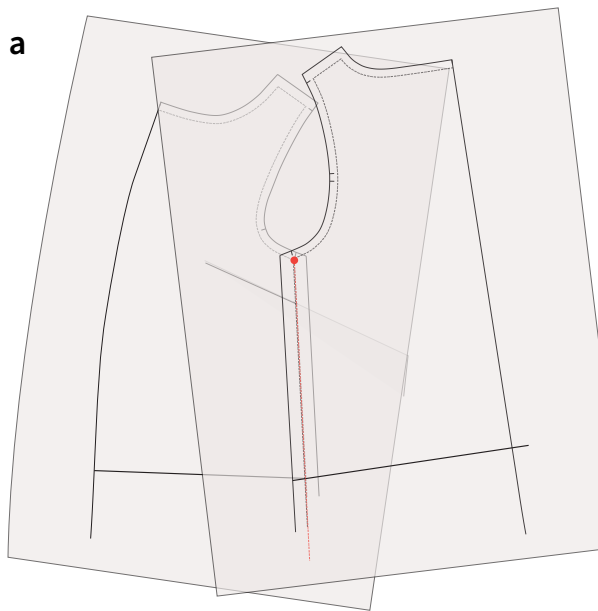


d Check that the seams are the same length. If one of your seams is longer by a small amount (up to 1cm / $\frac{3}{8}$ in), simply trim off the excess. If the discrepancy is bigger, you will need to remove half the excess from the length of one piece, and add the other half to the other piece, so that they are the same length (see p 26).

TRUING SEAMS

As well as checking that your seams are the same length, when checking patterns, you also need to 'true' each seam. What this means is that you need to check that the lines meet smoothly and there are no sharp points or dips in the lines (unless that is the intention of the design). This is also referred to as 'checking flow through'.

a

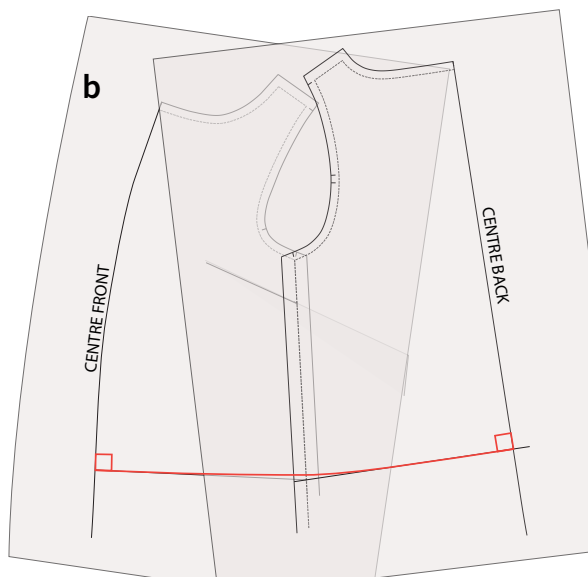


a For the example we will be using a generic top pattern with a dart. Fold the dart on the FRONT as if it has been sewn (more on this on p 27). Line up the side seam on the front and back pattern pieces - STITCH LINE on STITCH LINE, as if they have been sewn.

You will notice that the new hem lines come to a point at the side seam. We need to smooth this out (or 'true' the hem) so that we have a nice smooth curve for the hemline.

Hold pieces in place with pins or pattern weights.

b Take a ruler and draw a nice soft curve from the CENTRE FRONT to the CENTRE BACK. Be sure to meet the CENTRE FRONT and CENTRE BACK line with a perpendicular (90 degree) angle. At points where seams meet (or when a pattern is cut on the fold), you want to make sure there is a nice flow through from one side to the other, making sure that there are no dips or points created.

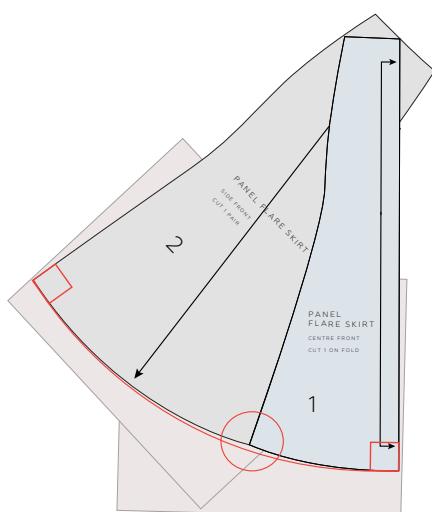




CHECK PATTERNS ARE SQUARED OUT

When a pattern is symmetrical, always check that both sides of the CENTRE FRONT and CENTRE BACK lines meet the intersecting seams at 90 degree angles. This is called 'squaring out' and will prevent any strange lumps, bumps or points in your pattern piece. You can use the corner of your ruler or a set square to check this.

a

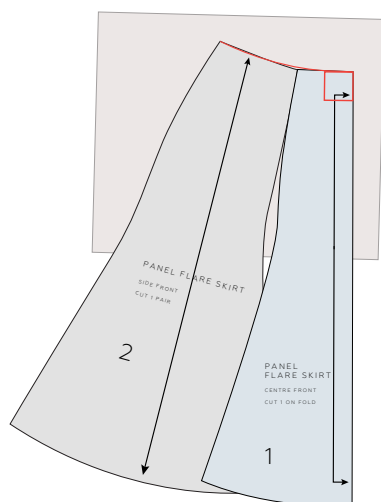


TRUE CURVED SEAMS

a Place the pieces as if they have been sewn together and pressed open to check the hemline. As you can see in the example, there is a small dip where the two pattern pieces meet. Redraw the hemline as a smooth curve, and adjust the pattern pieces to match.

As you can see in the example, you may need to attach some scrap paper to the pattern pieces to fill in any gaps. If you have overlapping paper like this, you will need to use a tracing wheel to transfer the new line onto the paper underneath.

b



If you only need to add a small amount of paper, consider using masking tape as a quick and easy way to 'grow on' paper to fill a small gap.

At this point, you should also check that the angle between the centre front and hemline is perpendicular. This means that when you cut the piece on the fold, you will get a nice smooth line. Check the side seam too - this should also be perpendicular.

b In the same way that you checked the hemline, you can check any other curves on the pattern. In the case of the example, we also need to check the waistline.

IF SEAMS ARE NOT THE SAME LENGTH

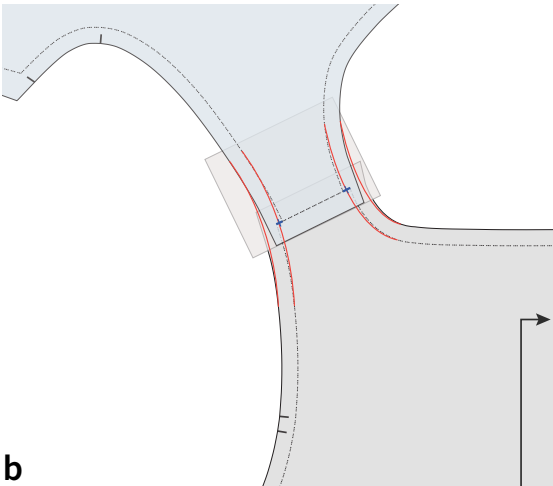
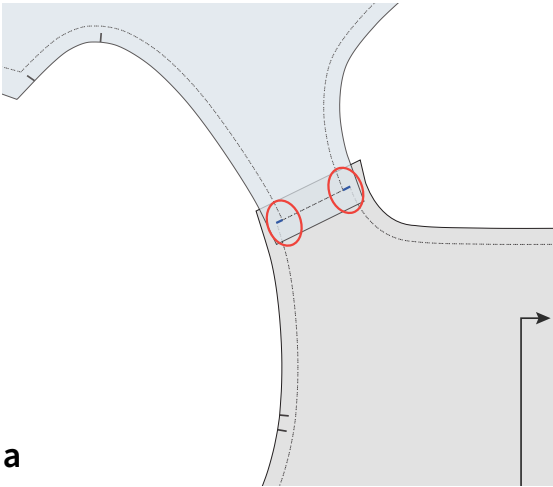
If your seams happen to be different lengths, you will need to do a small alteration to correct this. If the difference is larger than a few millimetres (up to 1cm / $\frac{3}{8}$ in), we suggest going back to the pattern and checking that you haven't made an error, before following the directions below.

You will need to add a little to one side of the seam and remove a little from the other so that they become the same length.

a You may be able to do this by eye, or alternatively you can measure the difference in length between the seams by lining the two pieces up as if they were sewn. See how much excess there is at the end of the seam.

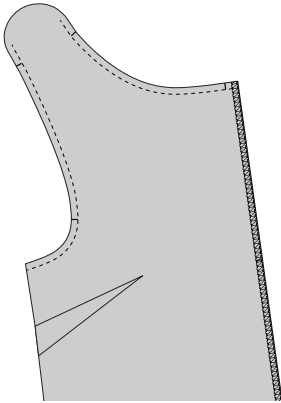
Take note of this measurement. You will want to distribute the difference on each side of the seam.

b Add to the seam on one side (the shorter side) and remove from the other, creating a line of best fit between the two seams. Draw in a smooth new seam line. Use a tracing wheel to transfer the new line from one pattern piece to the other. Tape on small pieces of paper or masking tape if you need to fill a gap to create the new shaping.

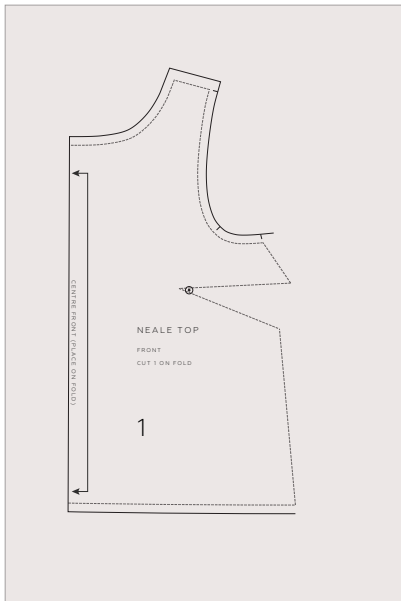


NOT ALL SEAMS NEED TO BE THE SAME LENGTH

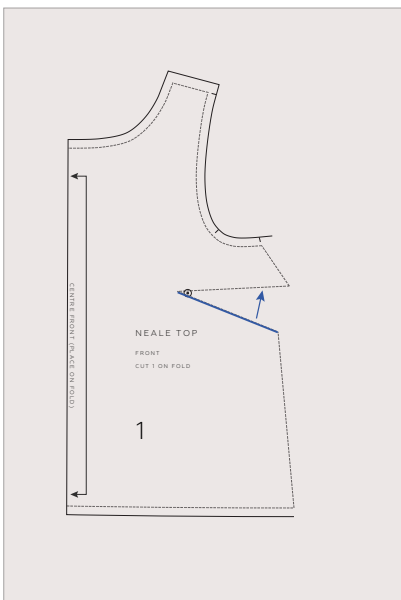
Keep in mind that not all pieces that are sewn together will be the same length - some need to be eased. For example, sleeve caps that need to be eased into armholes, pant leg back that needs to be eased into pant leg front, pant tops that need to be eased into waistbands, etc.



a



b



WHAT IS A DART?

Pattern drafting is the act of making something two dimensional (the fabric) fit around something three dimensional (the body). Darts are a way of doing this and are most commonly used to create shape around areas of the body that are curved: the bust, shoulders, elbows and waist, but can be used pretty much anywhere - whether purely for fit or as a design detail.

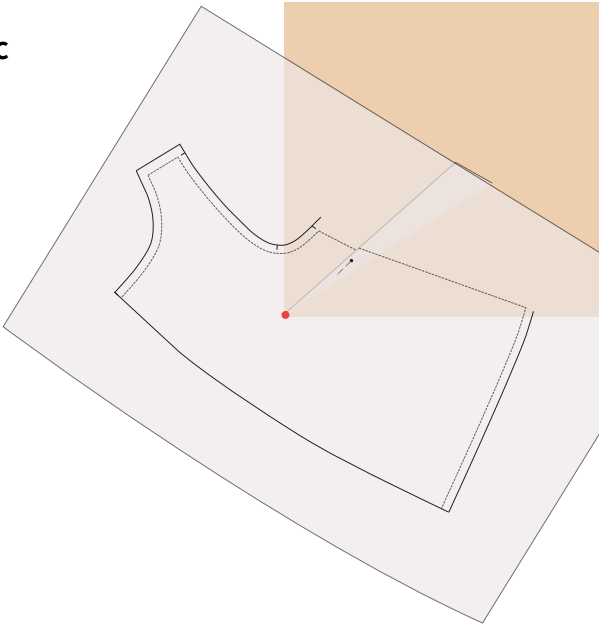
WHAT IS DART SHAPING AND WHY DO WE NEED TO THINK ABOUT IT?

You may have put a dart in a garment before and noticed that the dart has changed the shape of the seam that it lies on and is no longer the smooth line it once was. To prevent this from happening, we need to add dart shaping. This will ensure that once your dart is sewn, the seam it's on will remain a nice smooth line.

HOW TO ADD DART SHAPING

a Take the pattern piece that requires dart shaping. In the example we have added seam allowance to all seams except for the side seam. We cannot add seam allowance to the side seam until we have trued the dart and added dart shaping. Be sure to leave excess paper on the seam with the dart, as we will need this for the dart shaping.

b You will need to fold the dart, so you can predict what will happen to the shape of the seam when you sew the dart from the fabric. Think about which direction the fullness of your dart will be pressed once it is sewn. This will decide which dart arm you need to fold. Generally vertical darts are pressed towards the CENTRE FRONT (in the case of front darts) and the CENTRE BACK (in the case of back darts). For horizontal darts (like the one pictured), the bulk of the dart is pressed down.

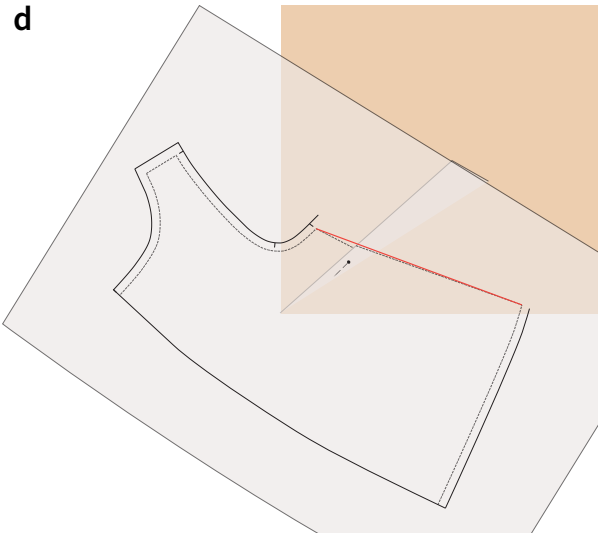
c**Tip**

You will be using a tracing wheel in the following steps. It is a good idea to slide a cutting mat under the pattern so that you don't damage your table.

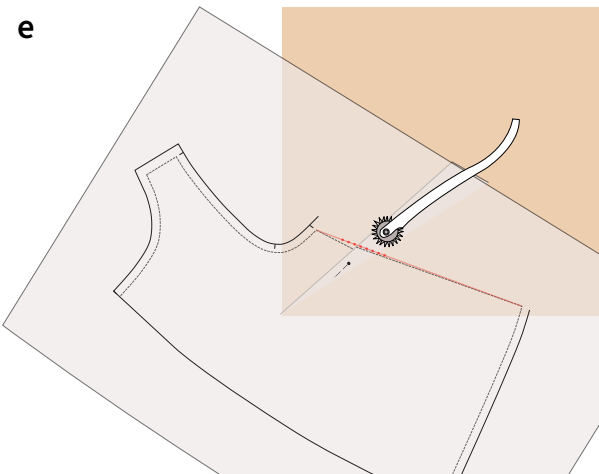
c Folding a dart on a flat surface is not possible, as we are making the two dimensional pattern three dimensional. Place the tip of the dart on the corner of a table (or a large books also works) and fold the lower dart arm so that it meets the upper dart arm.

As you can see in the example, the side seam line doesn't match up on either side of the folded dart. We will correct this before marking the dart shaping.

Hold folded dart in place with a pin or pattern weight.

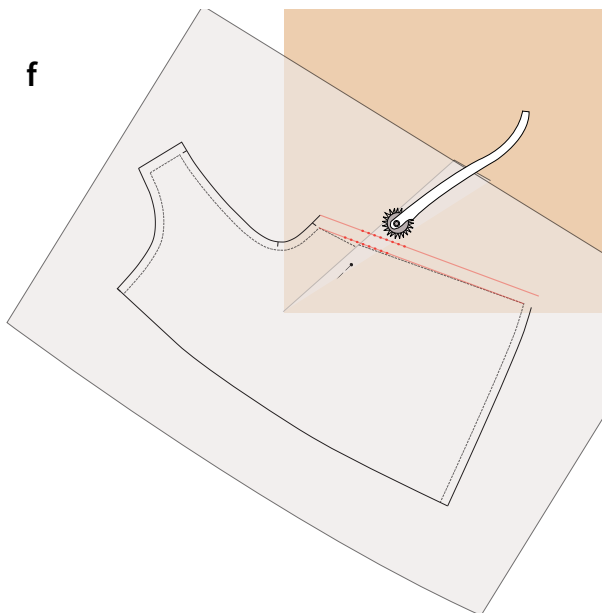
d

d Take a ruler and draw a straight line from the top of the side seam, down to the hemline. This is the new side seam **STITCH LINE**. If the seam had been a curve, you would draw in a smooth curve.

e

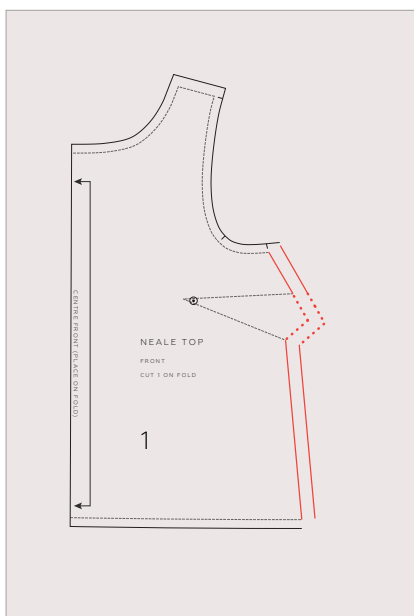
e Use a tracing wheel to transfer the new side seam **STITCH LINE** onto the folded section of the dart. This will give you the shaping you need for the dart. If you don't have a tracing wheel, poke small holes along the stitch line using a stiletto, pin or similar.

f



f Add seam allowance to the side seam. Use a tracing wheel to transfer the seam allowance line onto the folded section of the dart.

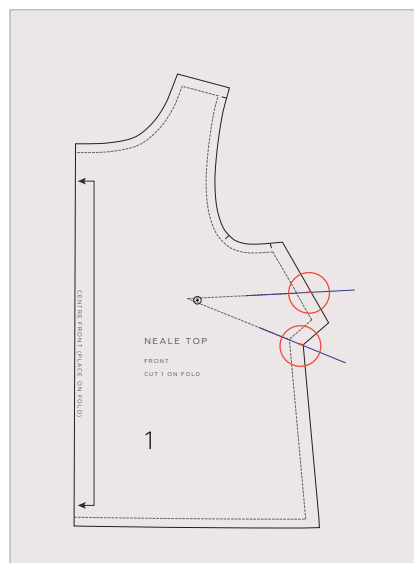
g



g Unfold dart. You will see the dots made by the tracing wheel.

Take a ruler and join the dots to form a nice smooth line.

h



h Add notches at the side seam by extending the dart arms through the seam allowance. Mark notches.

ALTERING FIT

Before making any changes to the design of a garment, it is best to get the fit right. This means making sure there is enough fabric in both length and width and that darts, panel lines and seams (such as side and shoulder seams) are in the correct position for your body.

GRADING PATTERN UP OR DOWN

The term 'grading' is used in two ways in the sewing world. Firstly, grading occurs when you alter the lines of a multi-size pattern to go between sizes. For example, you may have a size D bust, a size E waist and a size F hip. Obviously, you can't make a straight size E because the bust will be too large and the hip will be too small. So you will grade between sizes to get a fit that suits your specific measurements. This is a common pattern alteration when making your own clothes and a good one to learn how to do.

The other use of the word grading is how it's used in the fashion industry. Pattern grading is the process of increasing or decreasing the size of a clothing pattern to create multiple sizes while maintaining the proportions and overall design of the original garment.

Grading involves using a set of rules and measurements to scale the pattern up or down, typically based on standard size charts or specific customer measurements. This ensures that each size of the garment fits correctly and maintains the intended style and design details. This is the method we discuss below.

MANUAL GRADING METHODS

There are two main ways to grade a pattern manually: the slash and spread method and the shift method. Both methods will give you the same result, but if grading patterns is new to you, start with the slash and spread (p 36) as it's a great starting point for getting your head around the concept of grading, which will in turn be helpful if you decide you prefer to use the shift method.

The disadvantage of the slash and spread method is that you need to cut through your pattern, so it can take a little longer as you will need to trace a copy of the original pattern and then the time spent cutting and sticking it down is more time-consuming than the process involved when shifting (p 40).

HOW MUCH TO ADD OR REMOVE

The first thing you need to do when grading a pattern is work out how much width needs to be added or removed.

Start by measuring the width of the pattern at key points (bust, waist and hip), and comparing it to your actual measurements. Remember, patterns for woven garments have a certain amount of ease built into them (the space between your body and the garment) so when grading a pattern you need to keep this in mind.

Ease = finished garment measurements - body measurements

If going up or down more than a couple of sizes (10cm / 4in or more), we suggest making the grade incrementally. Size up by 2 sizes, redraft the pattern and then grade up by another 2 sizes. Continue this process until you have reached the required size.

For all grading, if you're not sure how much to add or remove, it can be helpful to refer to the size charts of ready to wear brands.

When we say up or down a "size" what does that mean?

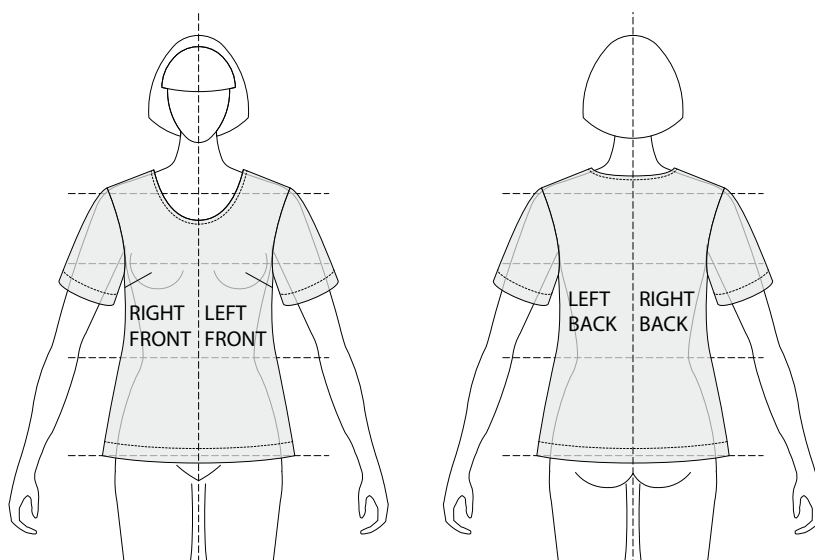
The difference between sizes will depend on a range of factors. Our size chart increases by 5cm (2in) for each size in the lower sizes (A-F) and then increases by 7.5cm (3in) in the larger sizes (G-P).

GRADING CHILDRENSWEAR

For childrenswear, the grade between sizes is much smaller than adult clothing. The difference between sizes will often be about 2cm ($\frac{3}{4}$ in), but the height increase will be greater than for adult clothing because the height of children often changes quite drastically between sizes.

If grading children's clothes, consider a 5cm (2in) height increase per size. So if you are grading a top, we recommend increasing the length by about half of this (2.5cm (1in)). For a jumpsuit, it would be the full amount as the garment covers the whole body.

DETERMINING YOUR GRADE RULES



For our example, we need to add 10cm (4in) width to the pattern in the bust, waist and hip.

If you think about a bodice pattern, normally you have a front and back piece that are cut on the fold to create the full garment. So you have a left front, left right, left back and right back. This means that when grading a pattern, you need to distribute the alteration between the four parts of the pattern.

To increase the pattern by 10cm (4in), we divide this by 4 (the four parts of the pattern), which means each part of the pattern will increase by 2.5cm (1in).

You then need to know what $\frac{1}{4}$ of this amount is and what $\frac{1}{2}$ of this amount is. In this case, $\frac{1}{4}$ = 6.25mm (we'll round to 6.2mm) ($\frac{1}{4}$ in) and $\frac{1}{2}$ = 1.25cm (we'll round to 1.3cm) ($\frac{1}{2}$ in).

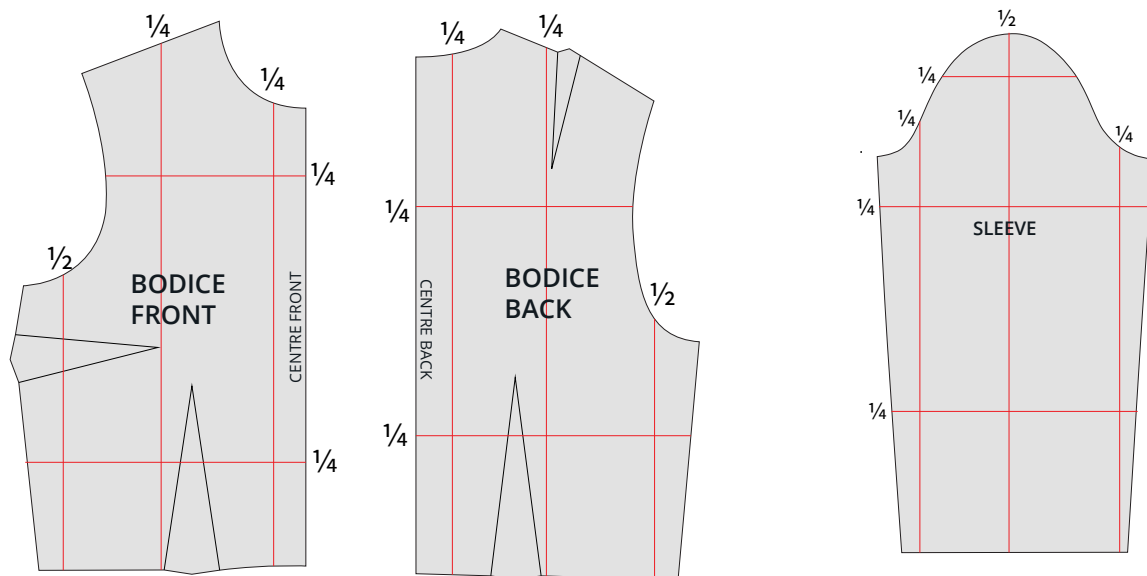
Use the table on the next page to take note of these numbers for your pattern as you will need them a number of times throughout the process.

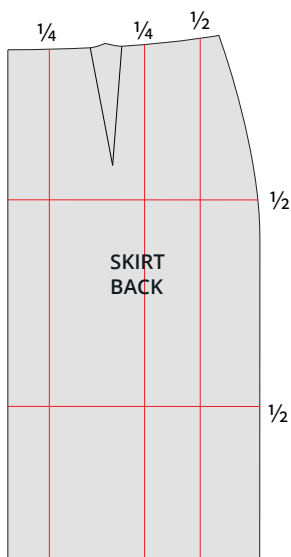
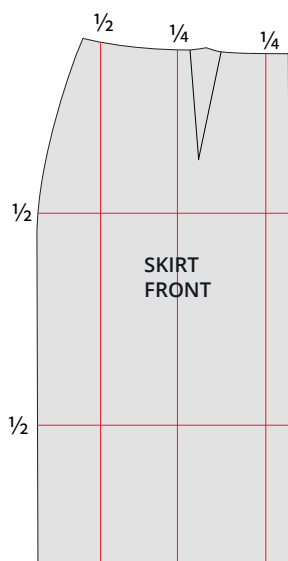
A	Total width to add to the pattern	
B	Total width (A) divided by 4	
C	$\frac{1}{4}$ of B	
D	$\frac{1}{2}$ of B	
E	$\frac{1}{3}$ of A (required for pants grading only)	

WHERE WIDTH AND LENGTH WILL BE ADDED OR REMOVED

The width will be adjusted in specific parts of the pattern and this is consistent from garment to garment. It is helpful to have a diagram in front of you to refer to when preparing your pattern for grading. If your pattern is quite different to a basic block, it might take some creative thinking to work out the positioning of the grading lines.

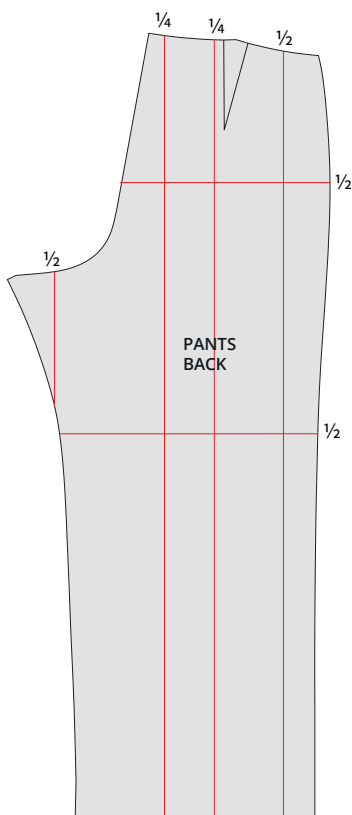
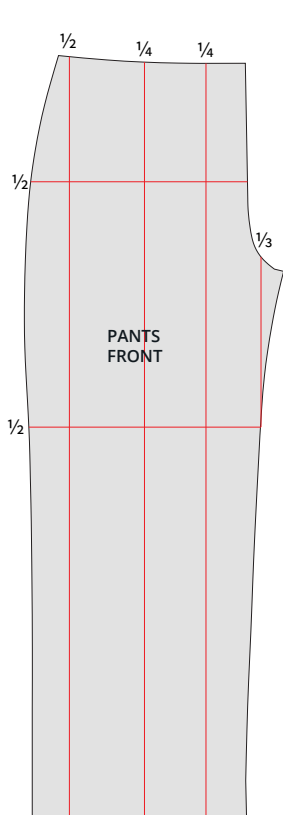
We have marked the amount that will be added / removed from each grade line so that you can use this for your reference. At this stage, you may not know what this means. Don't worry, it will make sense once you work through the tutorials.

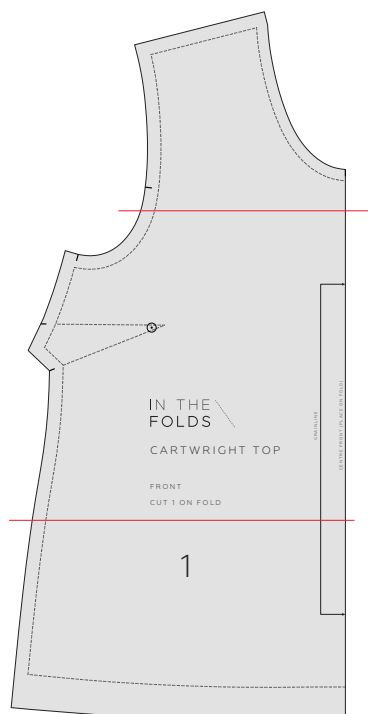




GRADING PANTS AND SKIRTS

In most cases, pants and skirts will have a waistband or waist facing. The waistband will need width added in the same places as on the skirts or pants, but the height of the waistband will not change between sizes.



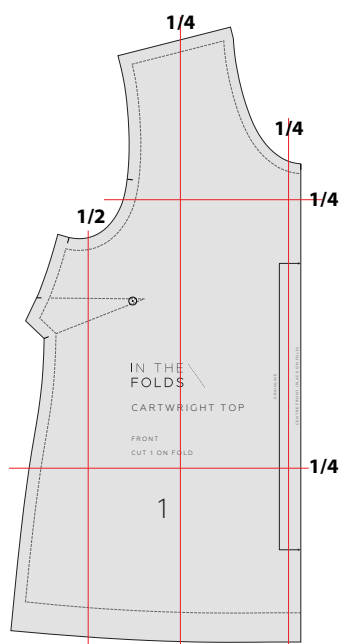
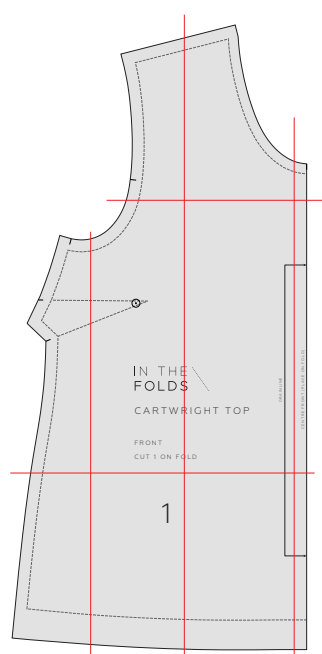


STEP 1

Mark in the horizontal grade lines on the pattern using the reference illustrations as a guide (p 33). We're working on a top pattern, so the horizontal lines go through the armhole and the waist (it doesn't have to be exact). These lines need to be perpendicular to CENTRE FRONT.

STEP 2

Mark in the vertical grade lines on the pattern. They go through the neckline (close to CENTRE FRONT), through the shoulder, and through the armhole near the side seam. These lines should be parallel to CENTRE FRONT.

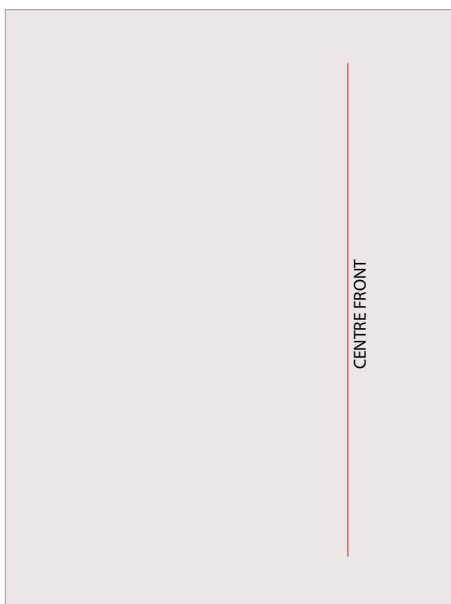


STEP 3

Familiarise yourself with how the grade will be distributed through the piece. You might find it helpful to write directly on the pattern piece the amount at each grade line.

For the vertical lines, $\frac{1}{4}$ goes through the line closest to CENTRE FRONT, another $\frac{1}{4}$ through the shoulder area, and $\frac{1}{2}$ through the armhole area. If you add these fractions together, you get 1, which means the allocated grade will be distributed through the piece.

For the horizontal lines, we will distribute $\frac{1}{4}$ through each line.

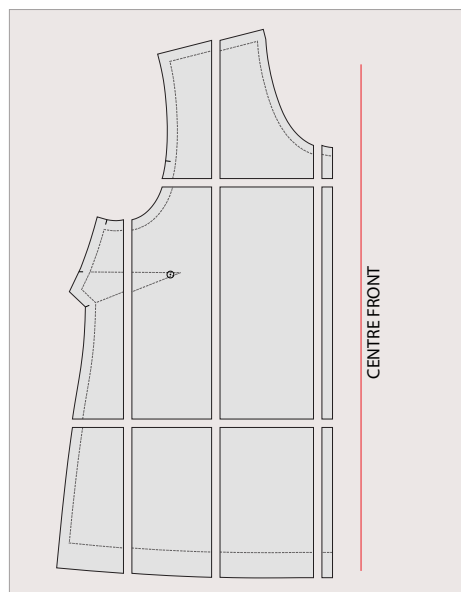
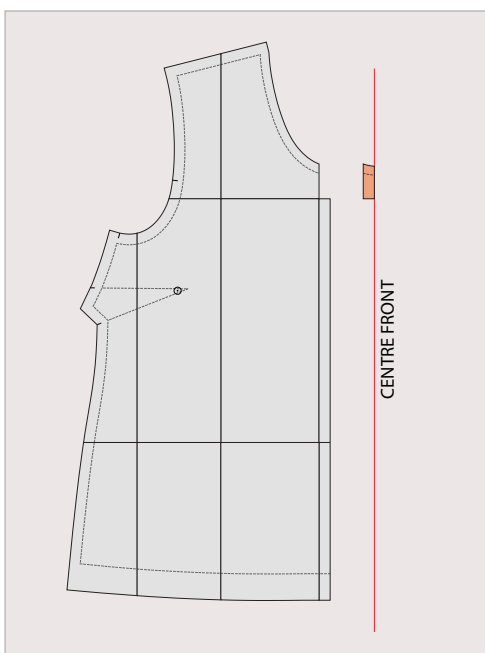


STEP 4

Take a piece of pattern paper that is larger than your pattern piece (if grading the pattern up) and mark in the CENTRE FRONT down one side.

STEP 5

Cut through the slash lines, being careful to not mix up the pieces.

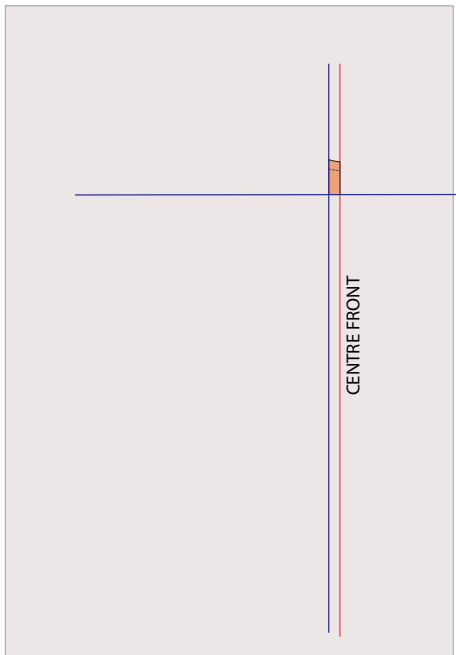


STEP 6

Start with the CENTRE FRONT neck section of the pattern. Line up the CENTRE FRONT edge with the CENTRE FRONT marked on the paper and glue or tape in place.

Illustration note

In the illustrations, we have changed the section of the pattern to orange when it is taped / glued in place.



MAKING THE PATTERN LARGER

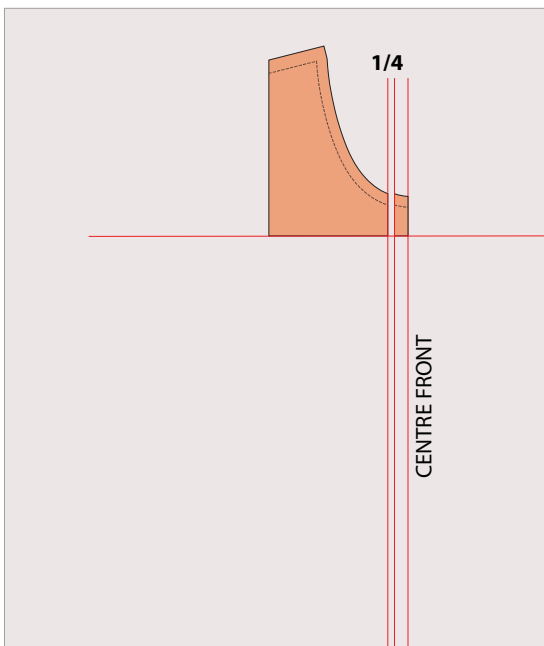
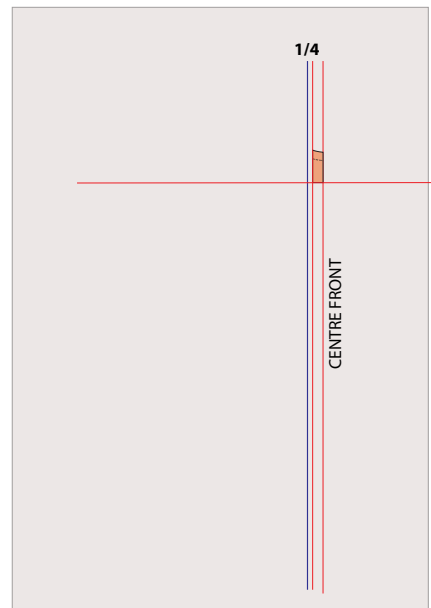
STEP 7

Draw a line down the side of the piece that is taped in place parallel to the CENTRE FRONT. Draw a line across the bottom of the piece perpendicular to CENTRE FRONT.

STEP 8

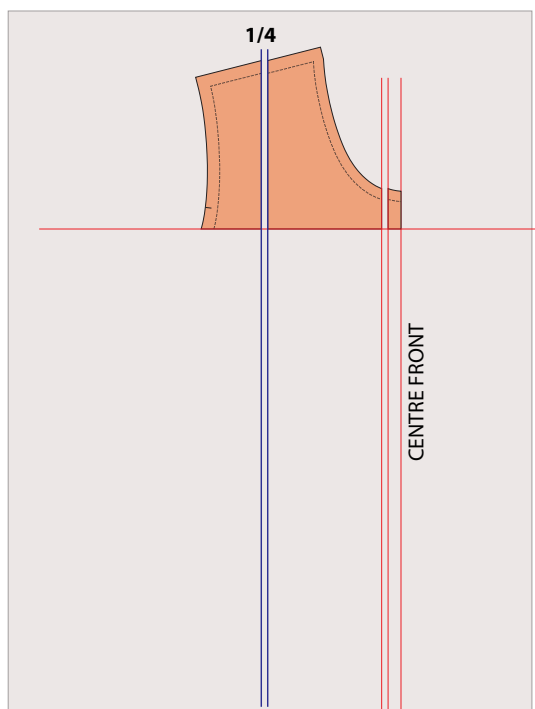
Referring to your diagram in STEP 3, you will see that $\frac{1}{4}$ of the grade (i.e. 6.2mm ($\frac{1}{4}$ in)) needs to be added to this section.

Draw a line 6.2mm ($\frac{1}{4}$ in) from the vertical line, making sure it's parallel to the first line.



STEP 9

Slide the next piece of the pattern over and line up the corner of the piece with the corner created by the lines. Tape or glue in place.



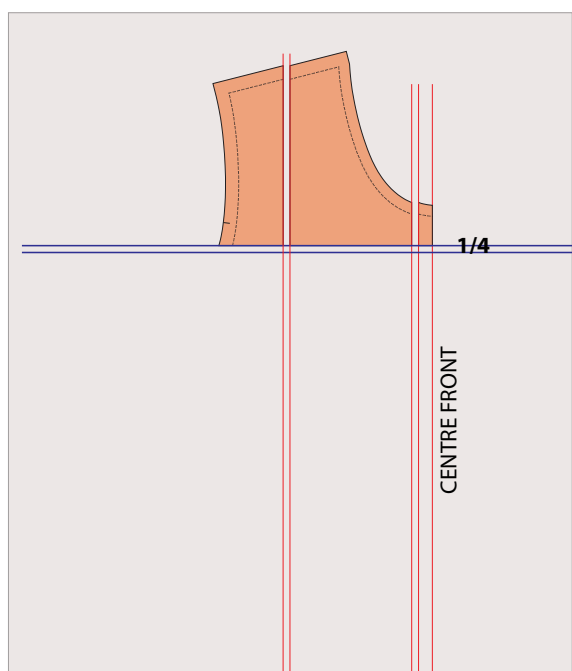
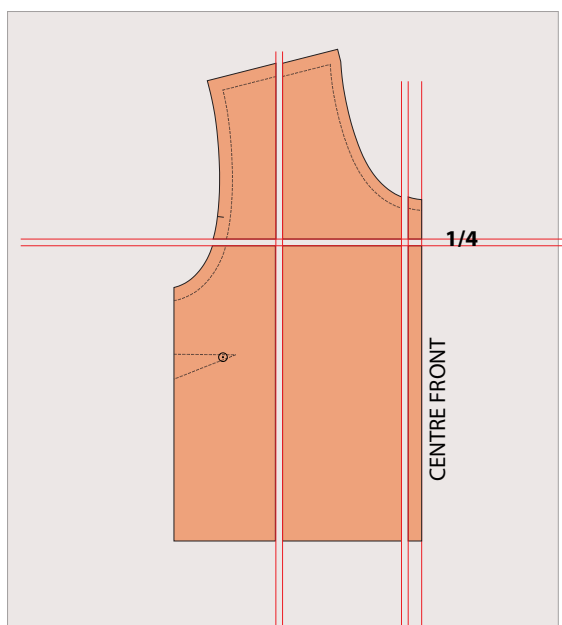
STEP 10

Repeat the process on the other side of the piece, again adding $\frac{1}{4}$ of the grade. Slide the pattern piece over and tape or glue in place.

STEP 11

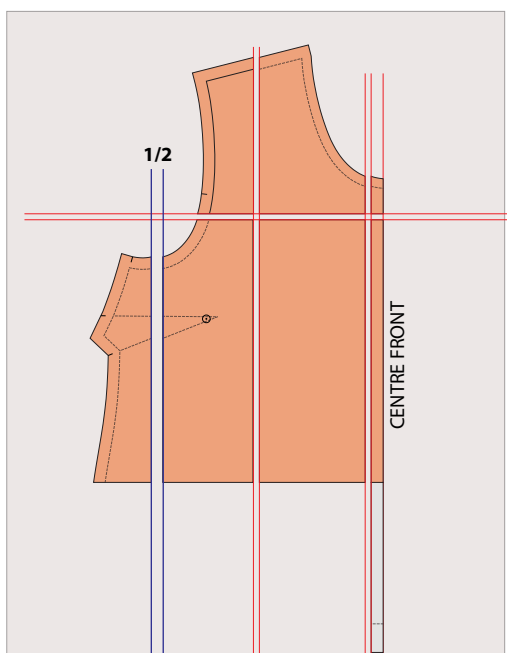
At this stage, you have the top section of the pattern in position, so you now need to move to the next row of pieces.

Before we get started, we need to add $\frac{1}{4}$ of the grade to the piece vertically. Use your ruler to mark this in below the pieces that are stuck in place.



STEP 12

Place the next three pieces in position using the guidelines. Stop when you get to the armhole, as we need to add another grade line there.



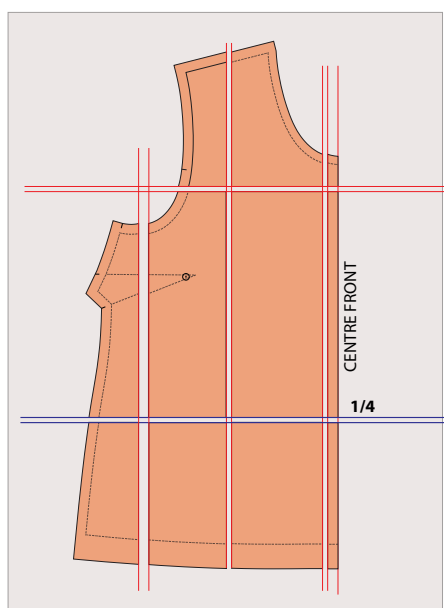
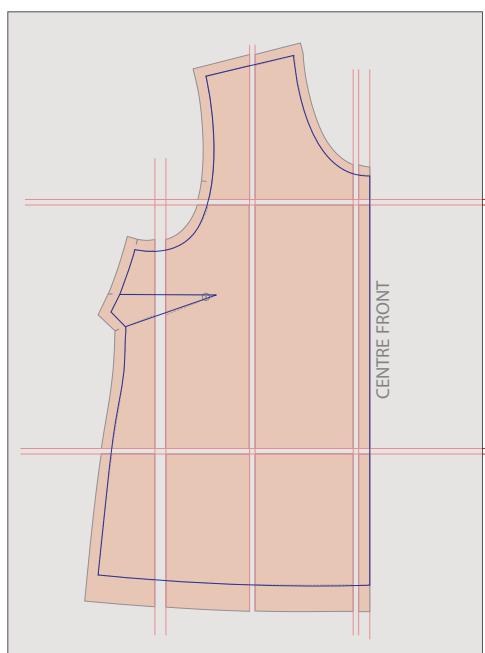
STEP 13

Draw a line down the side of the last piece that is taped in place parallel to the CENTRE FRONT.

Mark in another guideline parallel to the CENTRE FRONT, this time $\frac{1}{2}$ of the grade (i.e. 1.3cm ($\frac{1}{2}$ in)). Slide the next part of the pattern over and tape or glue in place.

STEP 14

Rule a line across the bottom of the pieces and another $\frac{1}{4}$ of the grade down from that. Position the remaining pattern pieces and tape or glue in place.

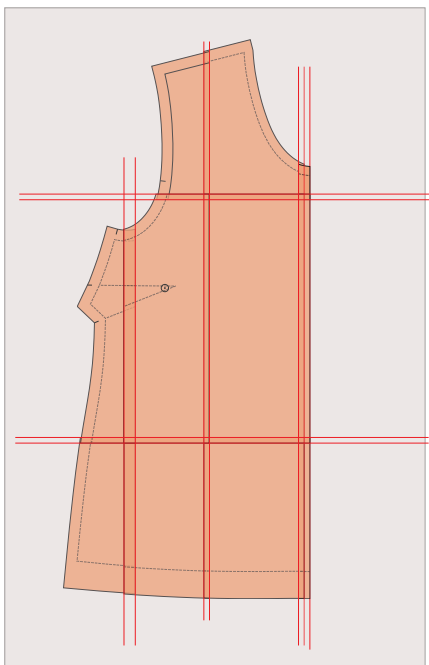


STEP 15

Redraw smooth STITCH LINES over the alteration. Add seam allowance back onto the pattern. You may want to do this by tracing the pattern onto another piece of pattern paper.

COMPLETE THE GRADE

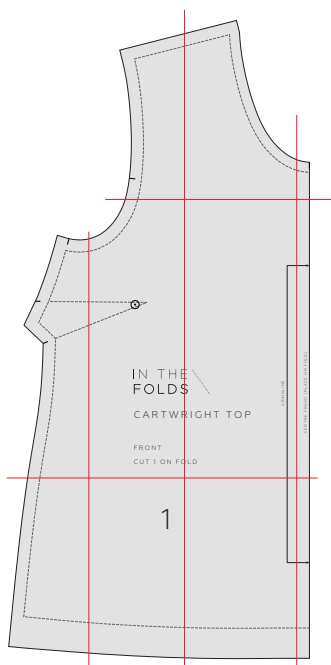
Repeat the process for the other pattern pieces. Check and true each seam to ensure the pieces fit together (p 22).



MAKING THE PATTERN SMALLER

The same process can be used for making a pattern smaller. Rather than slashing and spreading to add width, you need to overlap the sections of the pattern to make it smaller.

SHIFT METHOD

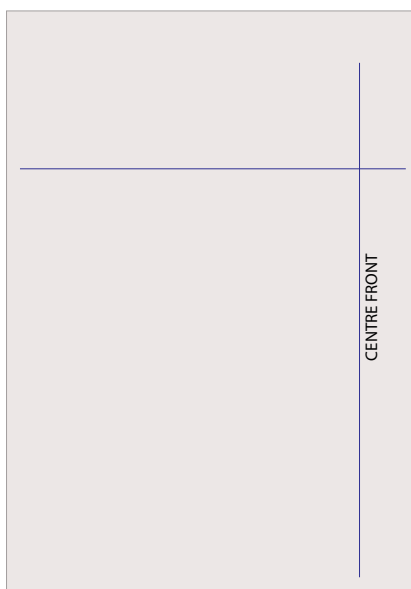


For this method, you will need the STITCH LINE marked on the pattern.

You can either have the seam allowance on the pattern or not. If you have seam allowance on the pattern, you will need a tracing wheel to transfer the pattern lines onto the pattern paper.

STEP 1

Prepare for grading following STEPS 1-3 (p 35).

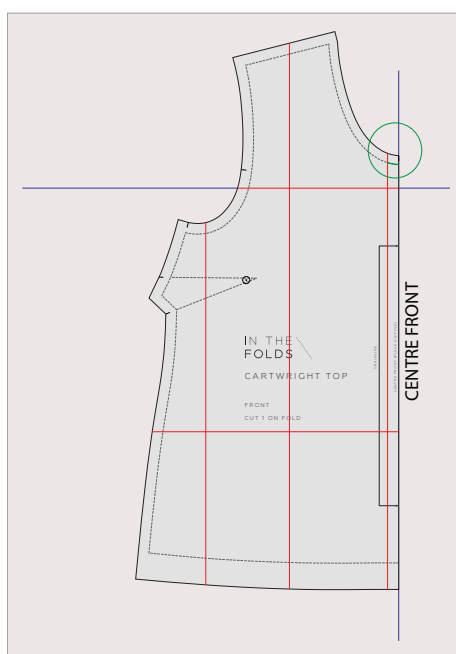
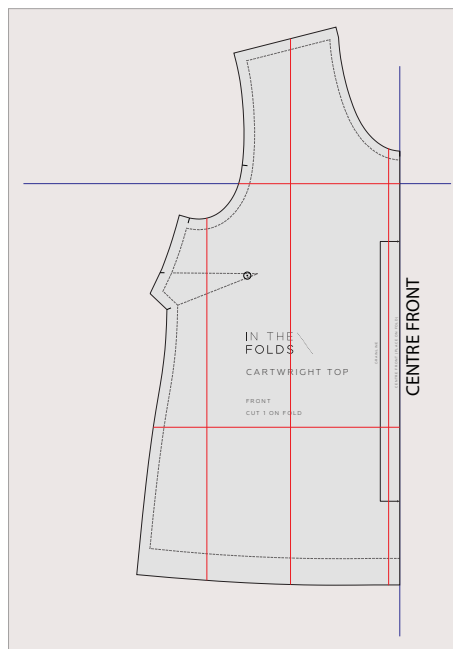


STEP 2

On a piece of pattern paper, mark a vertical line and label it CENTRE FRONT. Mark a horizontal line perpendicular to the first, towards the top of the line. These lines will help you keep things accurate as you move the pattern piece.

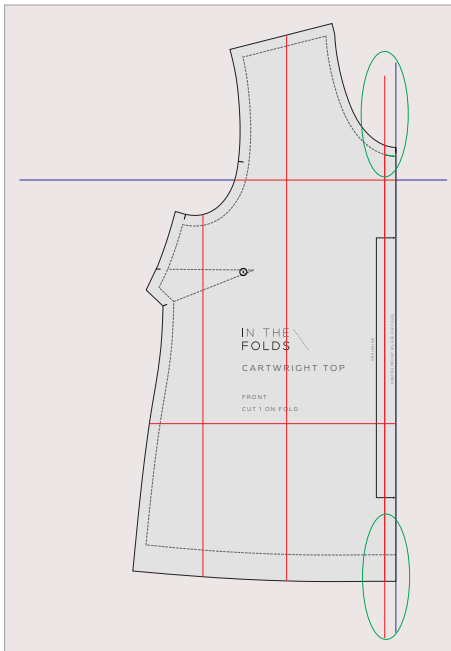
STEP 3

Line up the CENTRE FRONT of the pattern piece with the CENTRE FRONT line on the paper. Line up the upper grading line on the pattern with the horizontal line on the pattern paper. Hold in place with pattern weights.



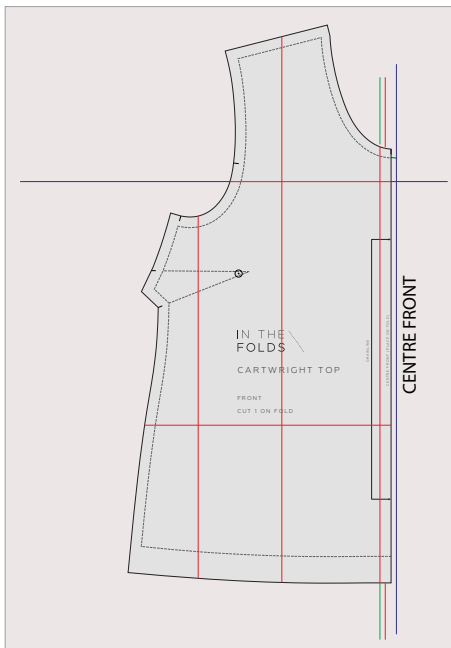
STEP 4

Starting at the CENTRE FRONT neckline, trace the neckline up to the vertical grading line onto the paper using a tracing wheel. If your pattern doesn't have seam allowance, just trace the edge of the pattern.



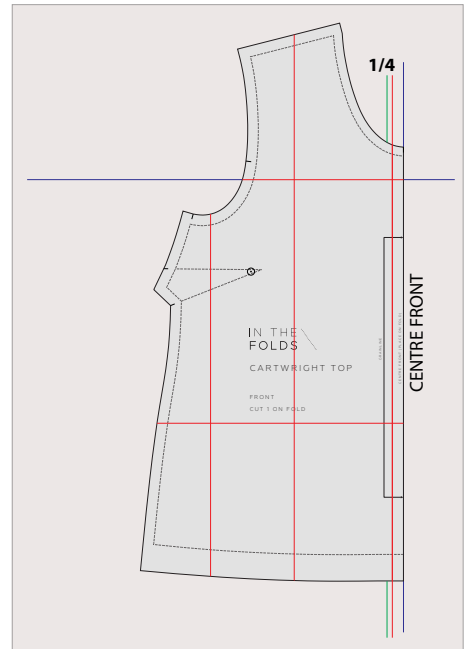
STEP 6

Mark a second line, $\frac{1}{4}$ of the grade amount from the first.



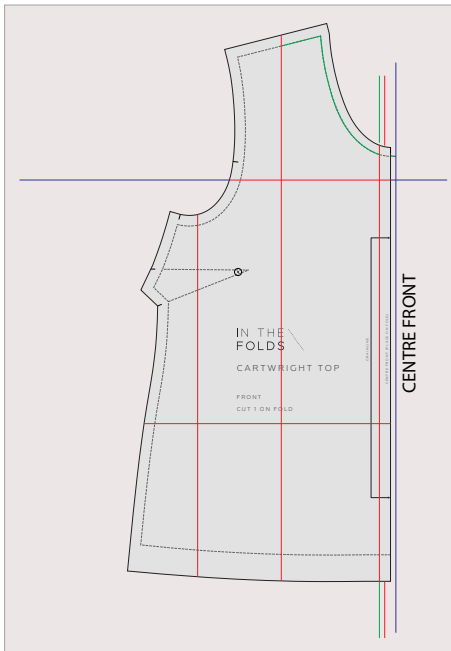
STEP 5

Using a ruler, extend the grading line onto the paper at the top and bottom of the pattern piece.



STEP 7

Carefully slide the pattern piece over so that the grading line on the pattern piece lines up with the second line. Use the horizontal line to ensure the piece stays level. Hold in place with a pattern weight.

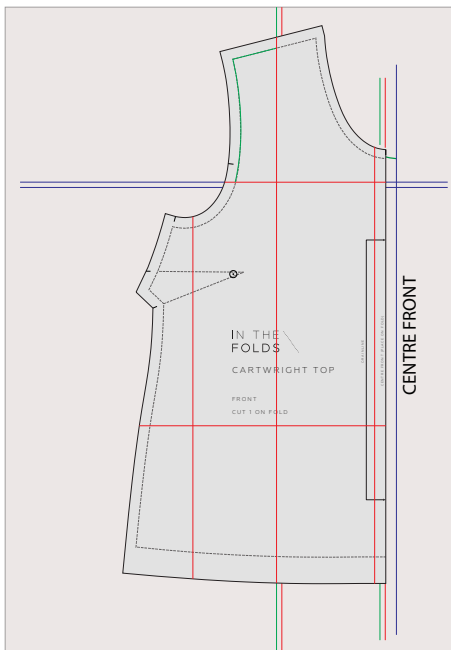
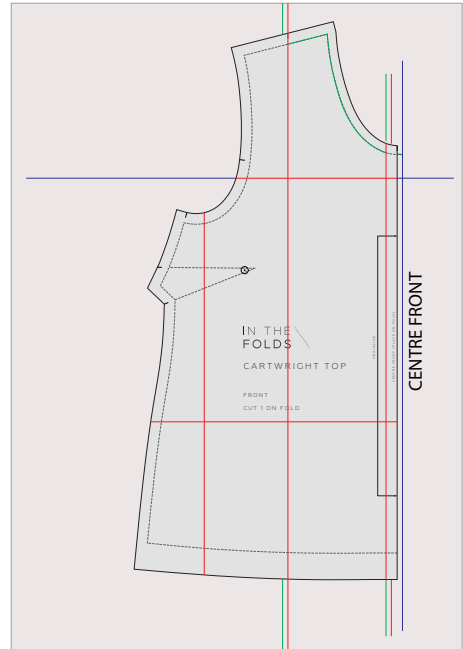


STEP 8

Continue tracing the pattern stitch line until you reach the next grading line.

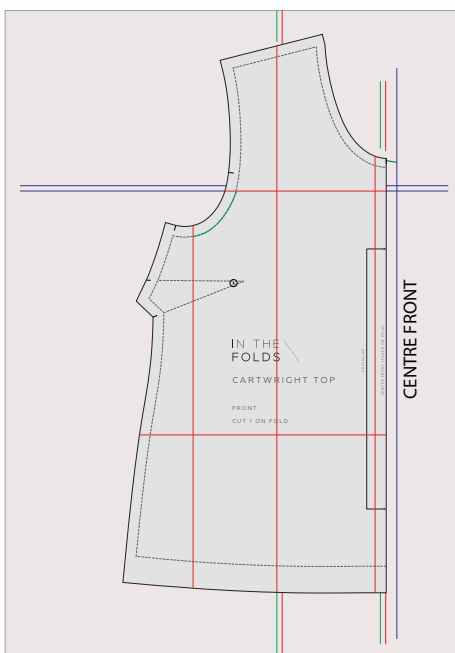
STEP 9

Again, extend the grading line onto the paper and draw a second line to the left of the first, $\frac{1}{4}$ of the grade amount.



STEP 10

Slide the pattern piece over and continue tracing the piece up to the next grading line.

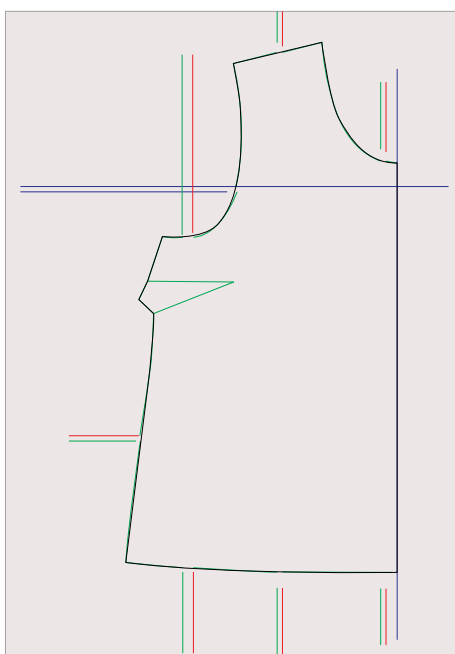
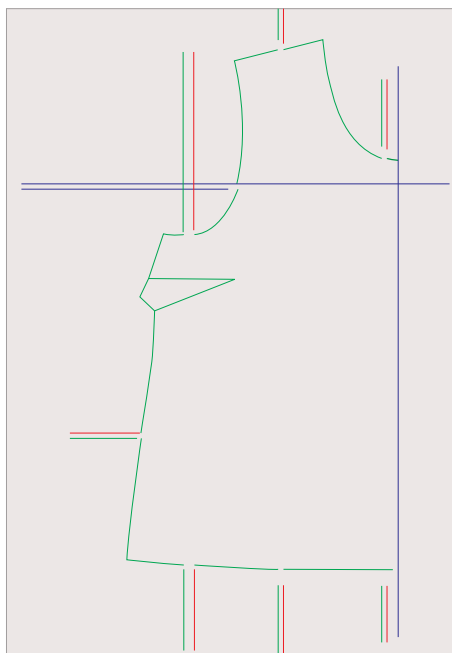


STEP 11

For the vertical lines, do the same thing. Mark a second line below the first and slide the pattern piece down to line up with the new line.

STEP 12

Continue the process until you get back to the CENTRE FRONT. Remove the pattern piece.



STEP 13

Finalise the pattern piece by drawing nice smooth lines over the traced lines. Add seam allowance and pattern markings. Repeat for the remainder of the pattern.

MOVE BUST APEX POINT / DART

INTRO

Darts should point towards your BUST APEX POINT. The dart should create nice shaping for your bust, but not extend to your BUST APEX POINT or beyond it.

FIND YOUR BUST APEX POINT

Wear the underwear / bra you plan to wear with the garment so that you get an accurate idea of the fit. If you normally don't wear a bra, then do your fitting without.

Mark the bust apex point on your toile. It is normally 2.5cm (1in) from the end of the dart. Check it matches with your actual BUST APEX POINT (**Image 1**).

ASSESS YOUR TOILE

If your actual BUST APEX POINT doesn't line up with the BUST APEX POINT on the pattern, mark your BUST APEX POINT onto your toile with a marker or crossed pins. Use the images on the right to help you determine what adjustment you need to do:

- If your dart sits at the correct angle, but the tip of the dart is sitting on your BUST APEX POINT, goes past your BUST APEX POINT, or is sitting too close (less than 2.5cm / 1in) to your BUST APEX POINT, you will need to shorten the dart (**Image 2**). Look top 46.
- If the BUST APEX POINT on your toile is higher or lower than your BUST APEX POINT (but aligns horizontally), you will need to move the dart up or down (**Image 3**). Look to p 48.
- If the BUST APEX POINT on your toile does not line up with your BUST APEX POINT vertically or horizontally, you will need to move the dart on both the horizontal and vertical axes (**Image 4**). Look to p 51.

IMAGE 1

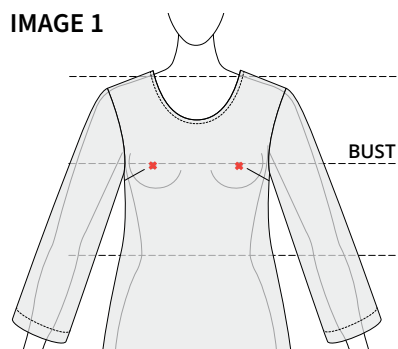


IMAGE 2

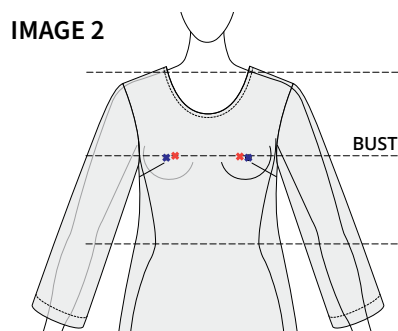


IMAGE 3

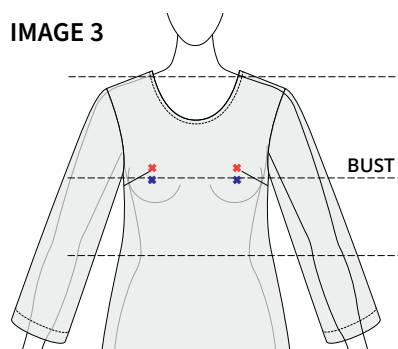


IMAGE 4

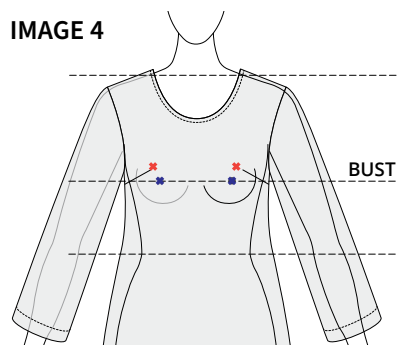
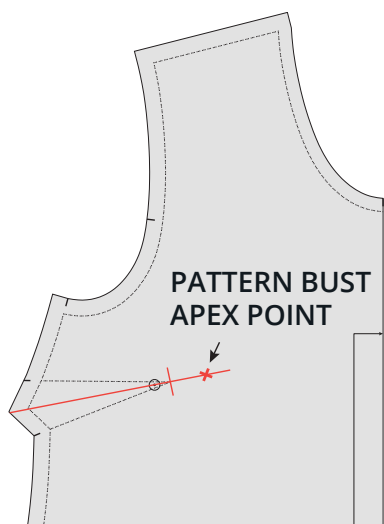


Image key

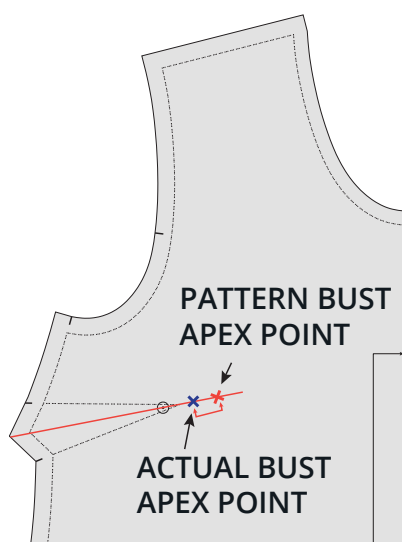
- ✕ PATTERN BUST APEX POINT
- ✕ ACTUAL BUST APEX POINT



STEP 1

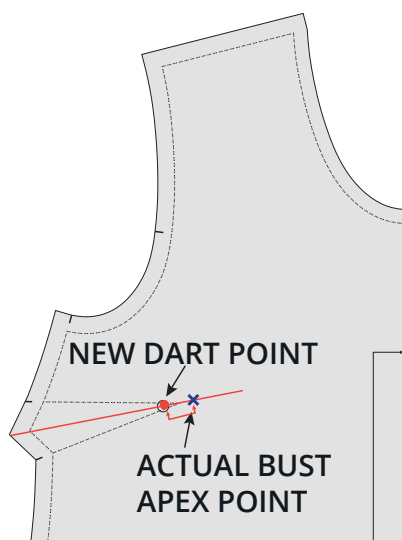
Draw a line through the centre of the dart from the side seam through to the dart point. Extend the line a few centimetres past the dart point.

Mark the **PATTERN BUST APEX POINT** on the line. On **In the Folds** patterns, this is normally 2.5cm (1in) beyond the tip of the dart point.



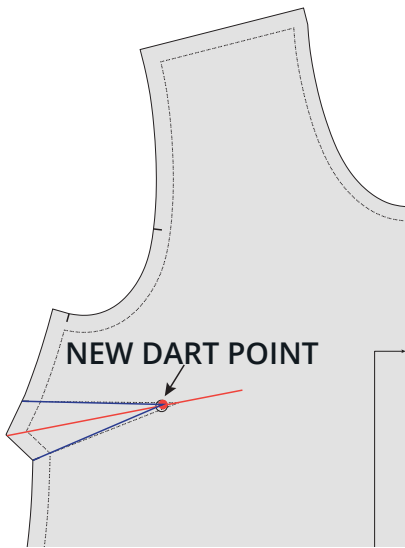
STEP 2

Mark your **ACTUAL BUST APEX POINT** on the pattern. It should lie on the line marked in STEP 1. This is because we will be shortening the dart, but not changing the angle of the dart. If your **ACTUAL BUST APEX POINT** is not on this line, return to p 45 - you may need to follow an alternate tutorial.



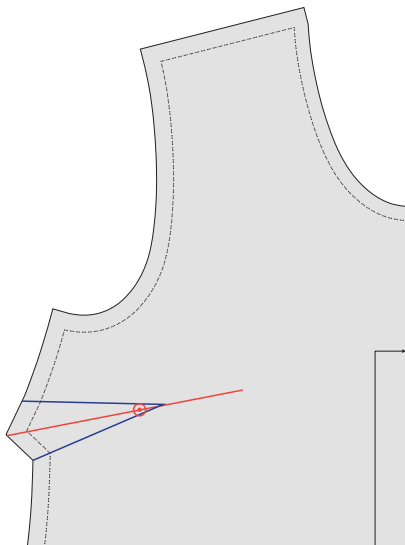
STEP 3

Mark your new dart point on the line by marking a point 2.5cm (1in) away from (towards the side seam) the **ACTUAL BUST APEX POINT**.



STEP 4

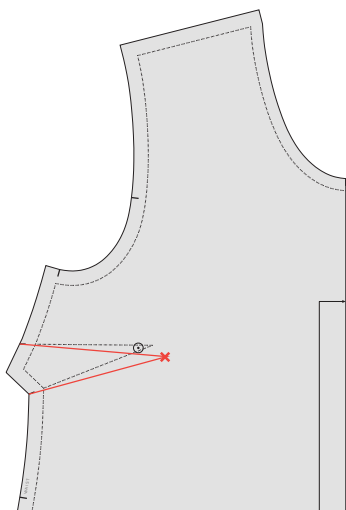
Draw the new dart, joining the original dart arms (at the side seam) to the new dart point.



STEP 5

Mark a new drill hole, **1.2cm (½in)** from the new dart point.

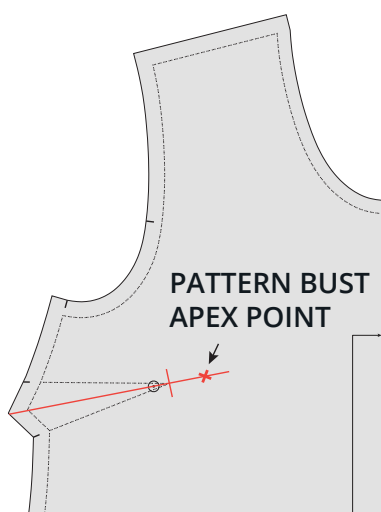
MOVE DART POINT (VERTICAL MOVE ONLY)



INTRO

In some cases, you can simply move the dart point and re-draw the dart arms by joining the new dart point to the original dart notches. You can choose this option if your dart point only needs to move by up to 1cm ($\frac{3}{8}$ in) in any direction. You then need to re-shape the dart at the side seam, as the new angle of the dart will impact the side seam (p 27).

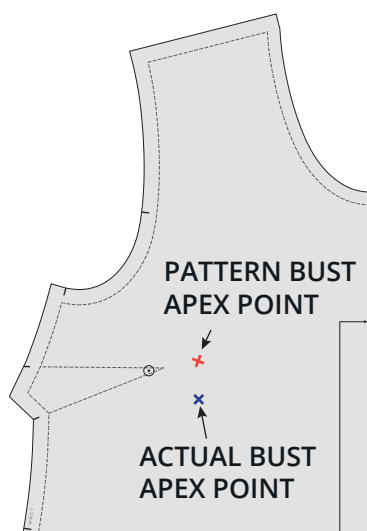
For any more than 1cm ($\frac{3}{8}$ in), it is suggested that you move the whole dart (this allows you to move the dart point, without changing the angle of the original dart).



STEP 1

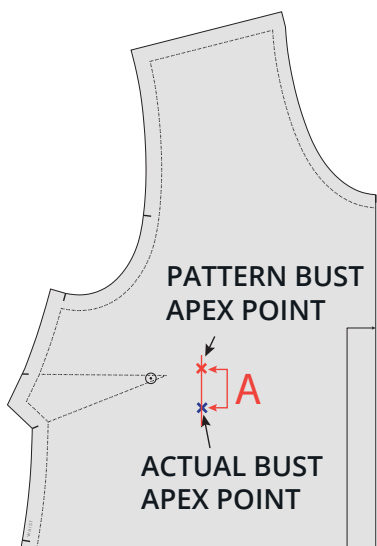
Draw a line through the centre of the dart from the side seam through the dart point. Extend the line a few centimetres past the dart point.

Mark the **PATTERN BUST APEX POINT** on the line. On **In the Folds** patterns, this is normally 2.5cm (1in) beyond the tip of the dart point for B-cup patterns and 5cm (2in) beyond the tip of the dart point for D-cup patterns.



STEP 2

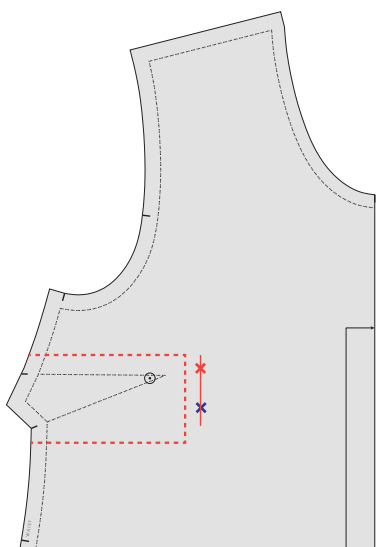
Mark your **ACTUAL BUST APEX POINT** on the pattern piece. You can find this by checking your toile / muslin and transferring the measurement to the pattern.



STEP 3

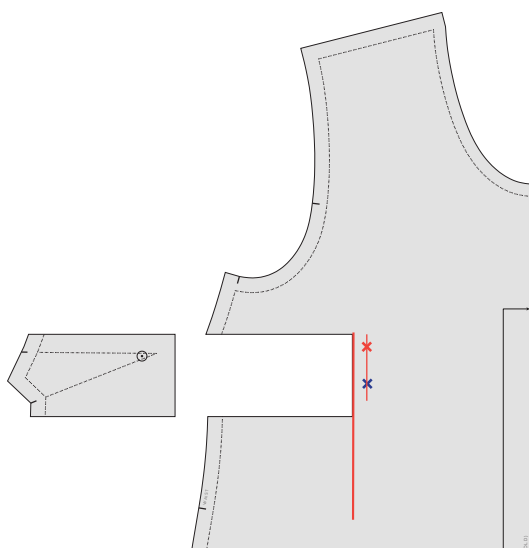
Draw a line between the ACTUAL BUST APEX POINT and the PATTERN BUST APEX POINT. If your new dart point isn't directly above or below your original dart point, move to p 52 (STEP 3). The process is slightly different if you need to move the dart point both vertically and horizontally.

Measure the length of the line and write down the measurement. We will refer to this measurement as **A**.



STEP 4

Draw a box around the dart. The top and bottom lines that make up the box need to be perpendicular to the grainline and the short side needs to be parallel to the grainline. The box should not cut through the dart and should allow some space around the dart on all sides.

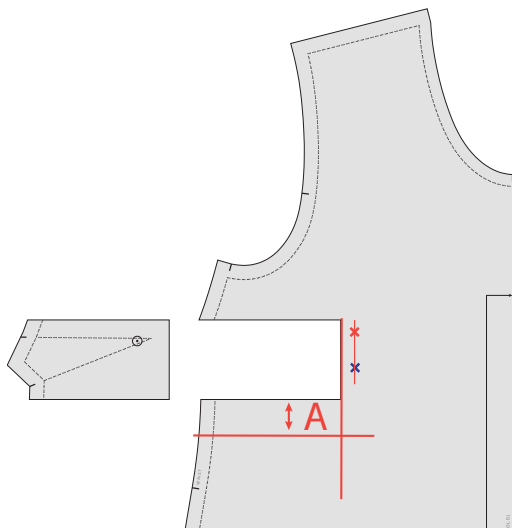


STEP 5

Cut out the box that surrounds the dart.

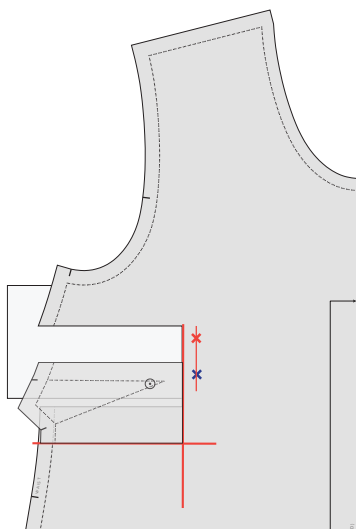
Draw a line that extends vertically down from the short side of the box parallel to the grainline.

If you are moving the dart up, extend the line up.



STEP 6

Along the vertical line, mark a point **A** distance from the bottom of the box. Draw a line that is parallel to the bottom edge of the box through point **A**.



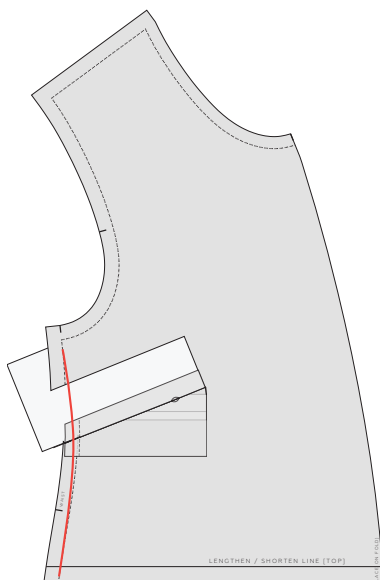
STEP 7

Take the piece that has the dart on it and line up the bottom corner of this rectangle with the corner of the box created in STEP 6.

Tape / glue in place.

As you can see, we have raised or lowered the dart position without changing the angle of the original dart.

Take some scrap paper and fill in the gap in the pattern using tape / glue to secure in place.

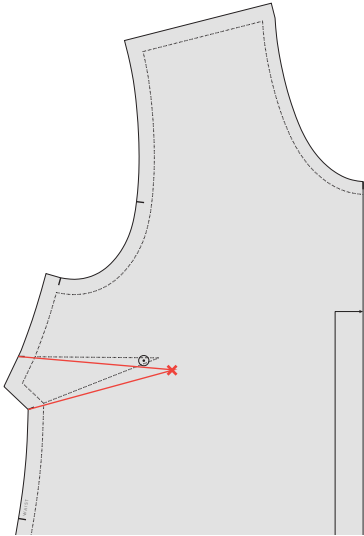


STEP 8

To finalise the new side seam shaping and dart shaping, close the dart by folding along the bottom dart arm and aligning the fold with the top dart arm as if the dart has been sewn (p 32).

Redraw the side seam with a nice smooth curve (a French curve will be handy here if you have one), joining the original side seam lines together with a line of best fit. True the dart (p 27) and add seam allowance back on (p 16).

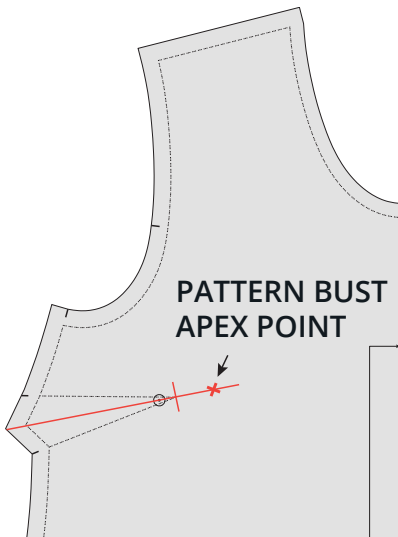
MOVE DART POINT (HORIZONTALLY + VERTICALLY)



INTRO

In some cases, you can simply move the dart point and re-draw the dart arms by joining the new dart point to the original dart notches. You can choose this option if your dart point only needs to move by up to 1cm (3⁄8in) in any direction. You then need to re-shape the dart at the side seam, as the new angle of the dart will impact the side seam (p 27).

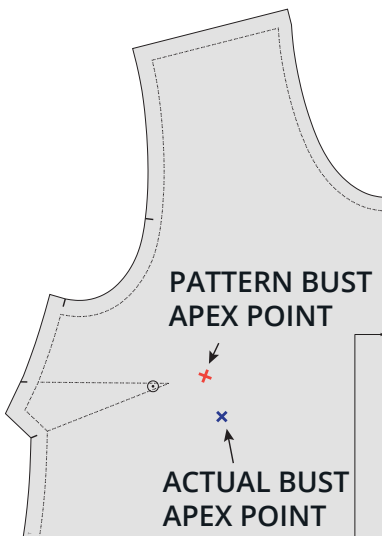
For any more than 1cm (3⁄8in), it is suggested that you move the whole dart (this allows you to move the dart point, without changing the angle of the original dart).



STEP 1

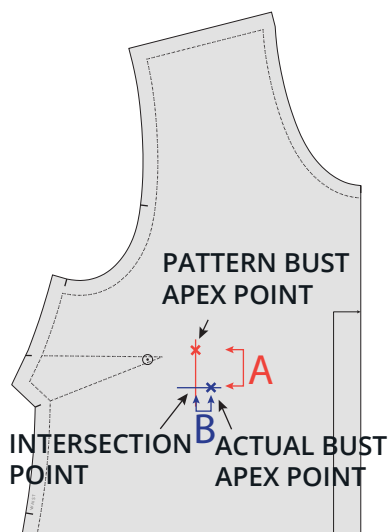
Draw a line through the centre of the dart from the side seam through the dart point. Extend the line a few centimetres past the dart point.

Mark the **PATTERN BUST APEX POINT** on the line. On **In the Folds** patterns, this is normally 2.5cm (1in) beyond the tip of the dart point for B-cup patterns and 5cm (2in) beyond the tip of the dart point for D-cup patterns.



STEP 2

Mark your **ACTUAL BUST APEX POINT** on the pattern piece. You can find this by checking your toile / muslin and transferring the measurement to the pattern.

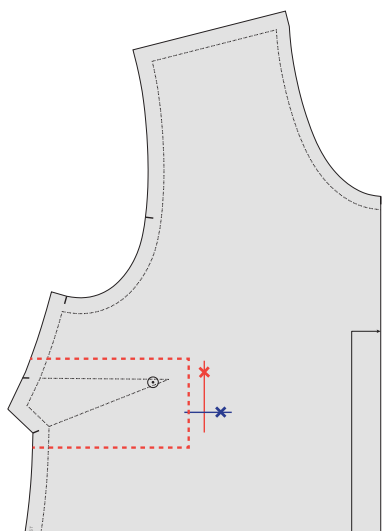


STEP 3

Draw a vertical line straight down from the **PATTERN BUST APEX POINT** parallel to the grainline. If your dart will be moving up, this line needs to be drawn up). Draw a horizontal line through the **ACTUAL BUST APEX POINT** perpendicular to the grainline, intersecting with the vertical line.

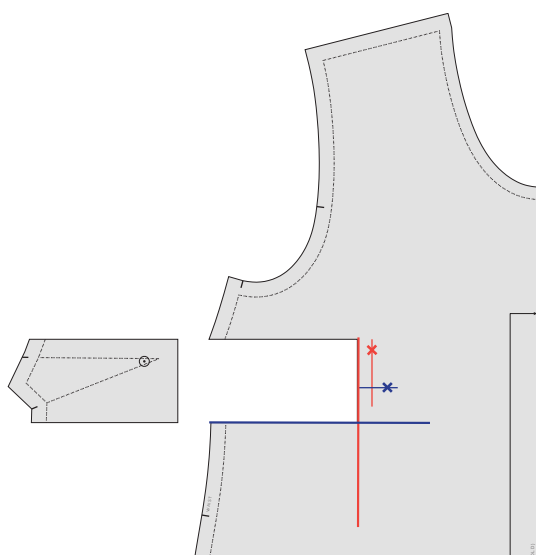
Measure the length of the vertical line from the **PATTERN BUST APEX POINT** to the **INTERSECTION POINT** of the two lines. Record the measurement. We will refer to this measurement as **A**.

Measure the length of the horizontal line from the **ACTUAL BUST APEX POINT** to the **INTERSECTION POINT** of the two lines. Record the measurement. We will refer to this measurement as **B**.



STEP 4

Draw a box around the dart. The top and bottom lines that make up the box need to be perpendicular to the grainline and the short side needs to be parallel to the grainline. The box should not cut through the dart and should allow some space around the dart on all sides.

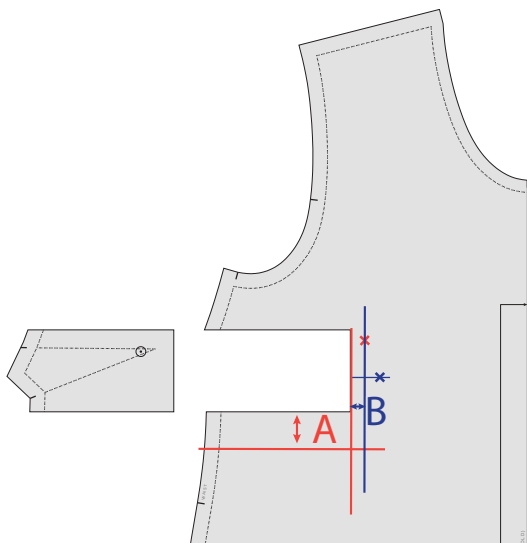


STEP 5

Cut out the box that surrounds the dart.

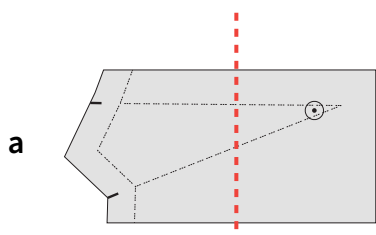
Draw a line that extends vertically down from the short side of the box parallel to the grainline. If you are moving the dart up, extend the line up.

Draw a second line extending the bottom line of the box perpendicular to the grainline. This will be at the top of the box if you are moving the dart up



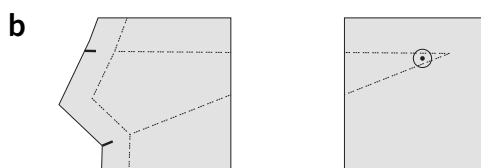
STEP 6

Along the vertical line, mark a point **A** distance from the bottom of the box. Draw a line that is parallel to the bottom edge of the box through point **A**. Repeat on the vertical axis using the **B** measurement.

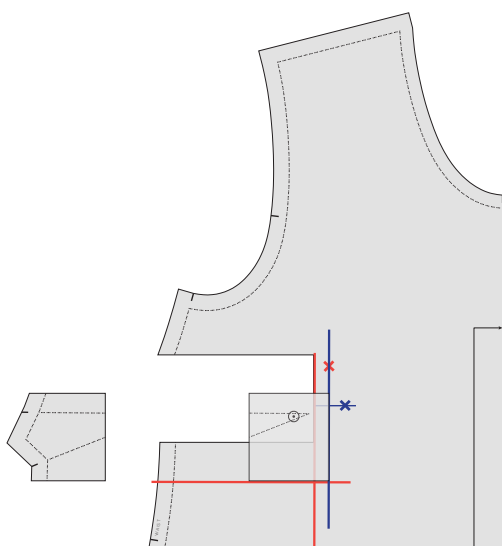


STEP 7

a Mark a vertical line through the dart. It doesn't really matter where you position this line, as long as it's within the dart.



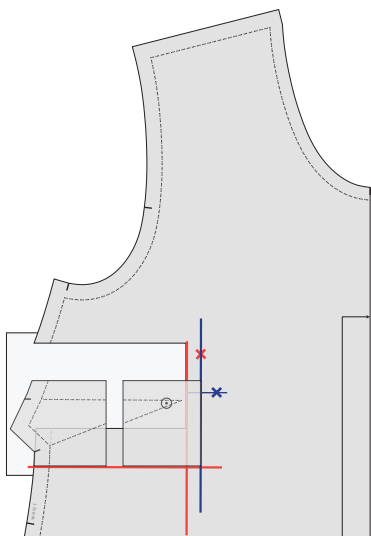
b Cut along the line, separating the dart into two pieces.



STEP 8

Take the piece of paper that has the tip of the dart on it and line up the corner of this rectangle with the corner of the box that was drawn in STEP 6.

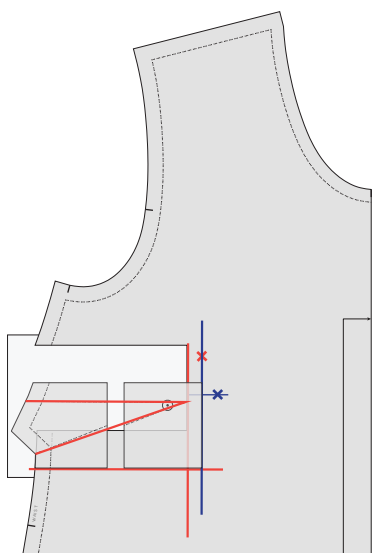
Tape / glue in place.



STEP 9

Take some scrap paper and fill in the gap in the pattern, using tape / glue to secure in place.

Move the remaining part of the dart to line up with the same horizontal guideline. Align the bottom edge of this piece with the guideline on the pattern. Line up the STITCH LINE at the side seam with the original side seam STITCH LINE on the pattern. As you can see, this will create a gap in the centre of the dart. If we didn't cut the dart, the end of the dart would no longer meet the side seam and we would have a distorted side seam.



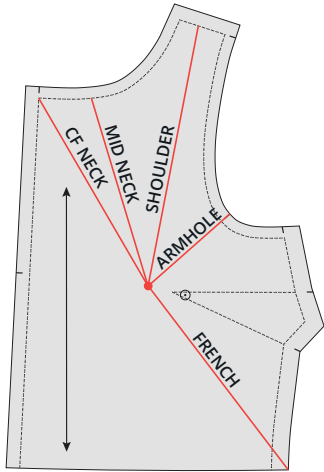
STEP 10

Re-draw the dart, joining the dart arms to the dart point.

Re-draw the side seam and true the dart by referring to p 50 (STEP 8).

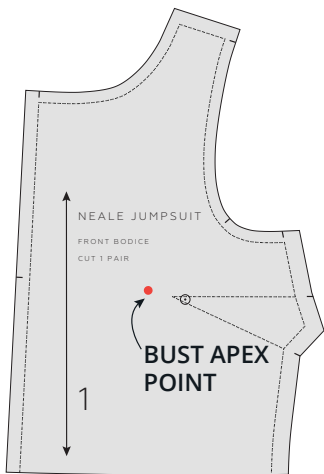
DARTS

Once darts are in the correct position for your body, there a number of adjustments you can make to alter the aesthetics of a design. You can move the position of the darts, you can remove them all together, or if your garment does not have darts but you would like it to, you can add them.



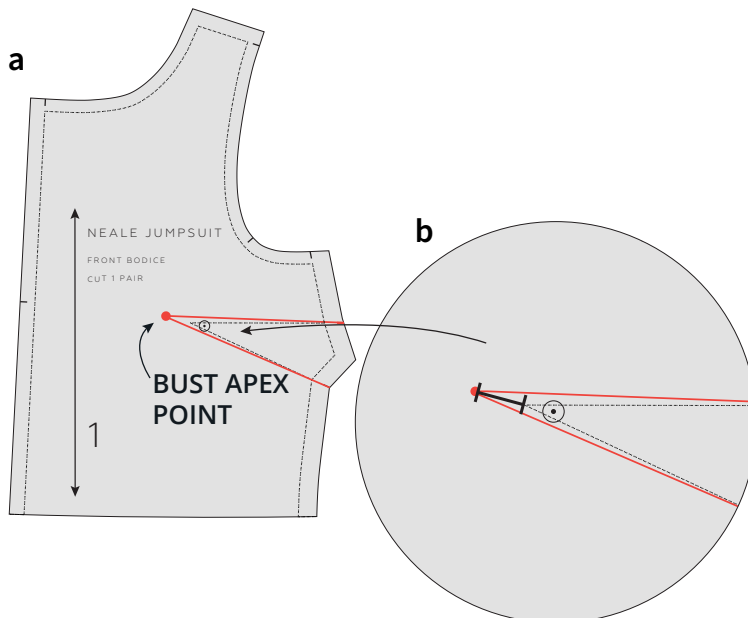
Bust darts can be moved around a pattern. You may choose to do this to change the look of a garment, due to your personal preference or to split a dart value. As long as the BUST APEX POINT remains in the correct position, the fit will remain the same - only the design will change due to the moving dart line.

In the illustration, you can see a number of places where you could move the side dart. You can use this technique on any pattern. The dart position options may vary depending on the design. For example, if you have a waist seam, you can move the dart to the waist seam.



STEP 1

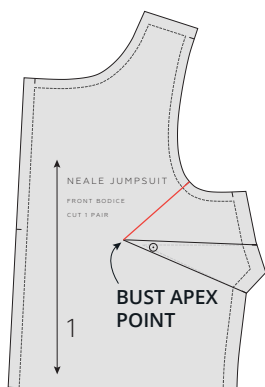
Mark the BUST APEX POINT onto the FRONT BODICE [1].



STEP 2

a Re-draw the dart using the BUST APEX POINT as the new dart tip.

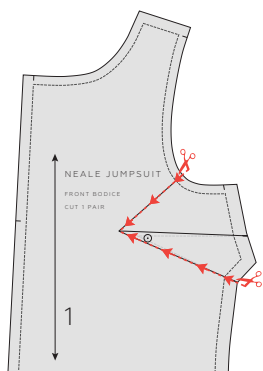
b Measure and record the distance between the original dart tip and the BUST APEX POINT. You will use this later on when you mark in the new dart.



STEP 3

Draw a straight line to indicate where you would like your new dart to be positioned. Use the diagram on p 56 as a guide.

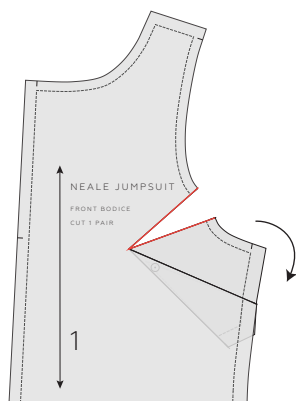
The line needs to meet the BUST APEX POINT.



STEP 4

Cut along the lower dart arm from the side seam towards the BUST APEX POINT. Do not cut all the way to the dart point - leave a small 1-2mm 'hinge' to keep the two pieces together.

Cut along your new dart position line towards the BUST APEX POINT. Again, stop cutting 1-2mm from the point.



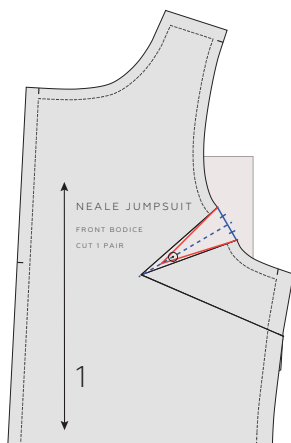
STEP 5

Close out the original dart by moving the upper dart arm down to meet the lower dart arm. You will see that by closing the side seam dart, you have opened a new dart in the new position. If you only want to move part of the dart, you can do so. Use tape to close the original dart permanently.

As you can see in the example, the new dart is smaller than the original dart. This is because the seam that we moved the dart to (armhole) is closer to the BUST APEX POINT than the seam it was originally on (side seam). You can think of darts as rotating around a circle (the centre of the circle being the BUST APEX POINT). The further the seam is from the BUST APEX POINT, the larger the dart width will be at the seam.

STEP 6

Take a piece of paper and glue / tape underneath the dart opening. Draw a line from the top of one dart arm to the other on the CUT LINE. Mark the centre of this line. Draw a straight line from the centre point through to the BUST APEX POINT.



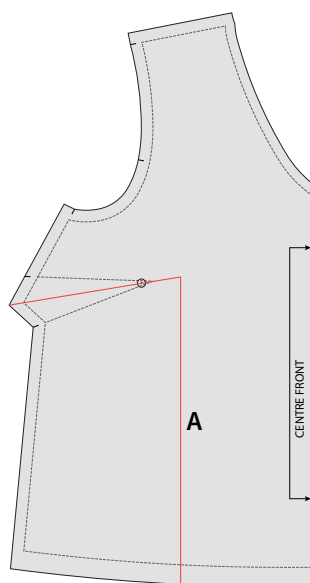
Mark the new dart point by looking at the distance recorded in STEP 2 (p 56). Mark a point this amount back from the BUST APEX POINT and join the point to the edges of the dart opening with straight lines (in red on the illustration)..

Add dart shaping by looking to p 27. Mark drill hole 1.2cm (½in) back from the new dart tip.

REMOVING DARTS

Darts can be closed and the fullness redistributed to create volume in a pattern. The volume allows the garment to still fit the body (a dart cannot often just be removed outright without impacting the fit of a garment). You may choose to do this because you would prefer the garment not to have darts, or would like to alter the shape of the garment. If you would like to keep the pattern's existing shape but do not want darts, you will need to transform the darts into panel lines (p 67).

With this technique you can only add a certain amount of volume (the equivalent of the dart). If you would like to add more volume, you will need to use the slash and spread technique to add it (p 110).



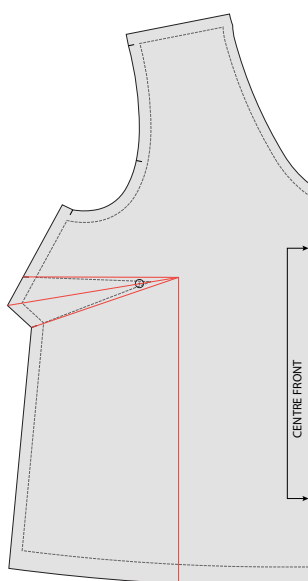
STEP 1

Draw a line through the centre of the bust dart, extending 2.5cm (1in) past the tip of the dart. This is the BUST APEX POINT. If you have already found your specific BUST APEX POINT, mark it on the pattern.

Draw a line from the bust apex point to the hemline - parallel to CENTRE FRONT. We will call this Line **A**.

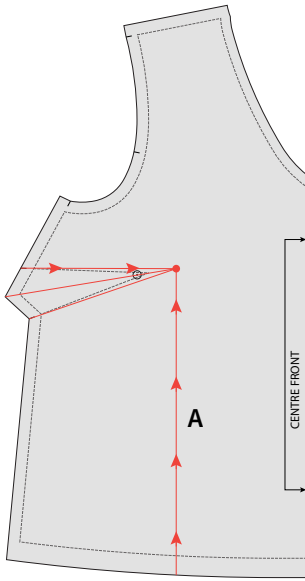
Tip

Although relocating fullness to the hem is the most common option, you can move it elsewhere, such as to the neckline to create a gathered neckline or the shoulder for a gathered shoulder.



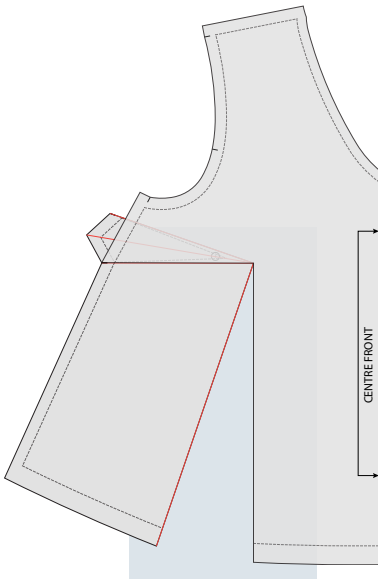
STEP 2

Re-draw the dart using the BUST APEX POINT as the new dart tip.



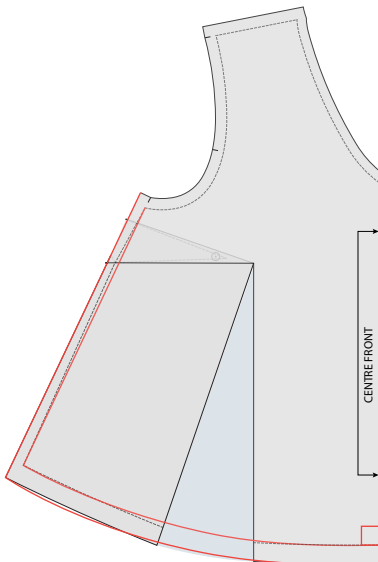
STEP 3

Cut up line **A** from the hem, stopping 1-2mm from the BUST APEX POINT. Cut along one of the dart arms, stopping 1-2mm from the BUST APEX POINT.



STEP 4

Carefully rotate the cut dart arm so it meets the uncut dart arm. Through this process you are relocating the dart fullness to the hem. Tape dart closed. Fill the gap with some paper and tape in place.

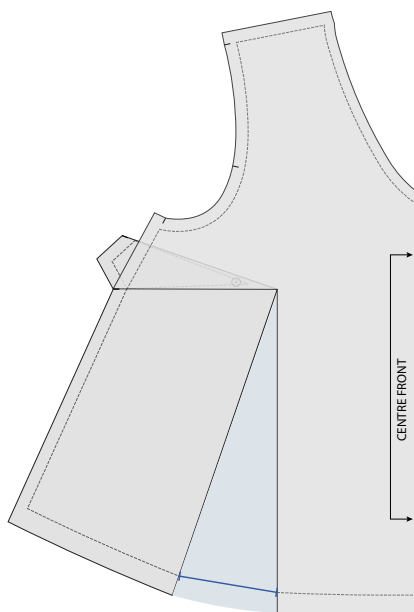


STEP 5

Re-draw the hem line with a smooth curve over the alteration making sure it meets the CENTRE FRONT at a right angle. Straighten side seam.

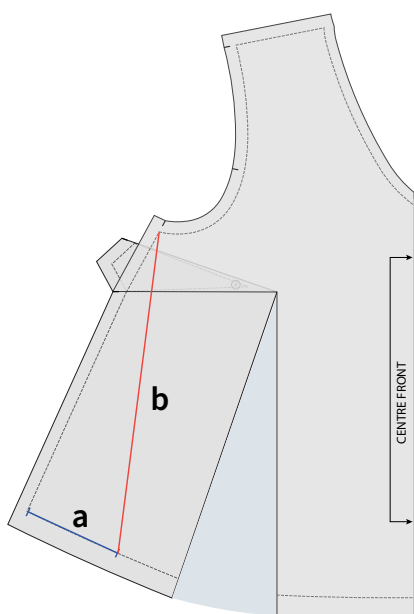
REMOVE ADDED VOLUME FROM THE HEM

If you have a small or flat bust, you might realise that you don't need a dart, which means you also don't need the added fullness in the hem to create bust shaping. To remove bust shaping you can do a Small Bust Adjustment and remove the whole dart, or you can follow the method below.



STEP 1

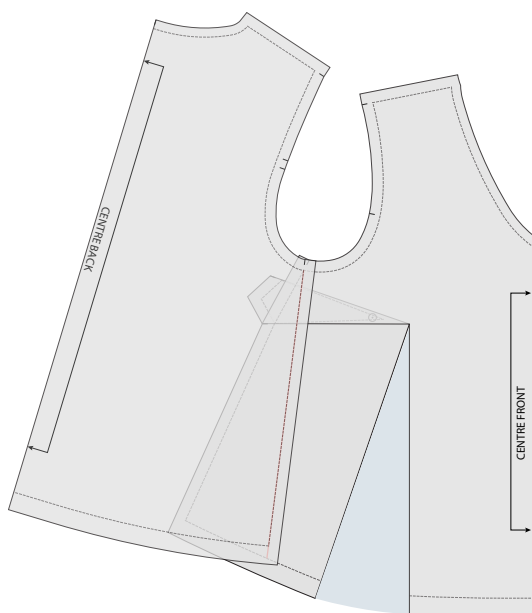
Measure the opening in the hem, measuring on the STITCH LINE from each side of the opening (this is the grey line on **In the Folds** patterns). Take note of the measurement.



STEP 2

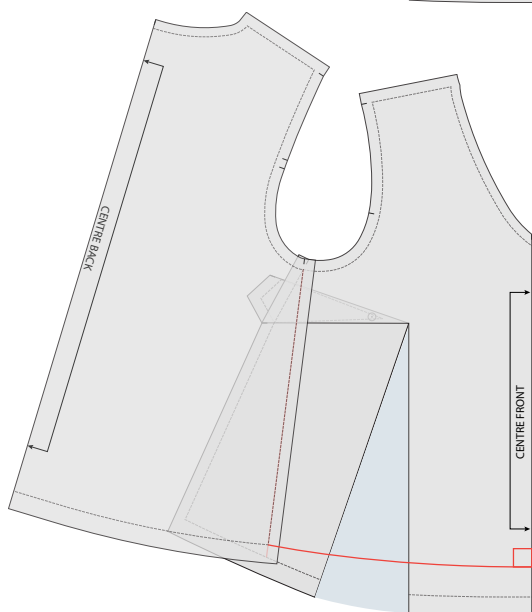
a We are now going to remove this excess from the side seam. Mark the amount recorded in the previous step on the hem line, measuring from the side seam (on the STITCH LINE). If you want to keep some of the fullness, you can, just mark a shorter amount from the side seam.

b Create a new side seam, drawing a straight line from the point marked up to the top of the side seam.



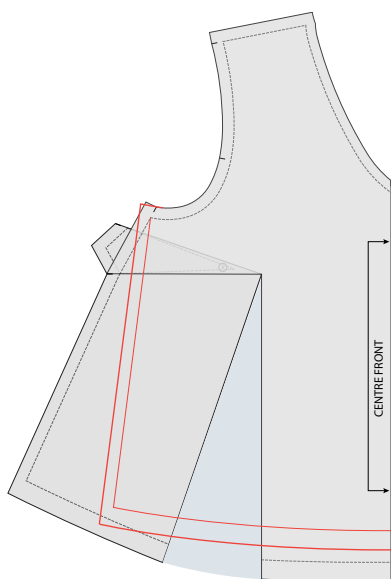
STEP 3

Line up the FRONT and BACK patterns at the side seam, STITCH LINE on STITCH LINE, to check that the side seams are the same length. In the example, you can see with the alteration to the FRONT, the FRONT side seam is now longer than the BACK side seam.



STEP 4

Draw in a new FRONT hem line, using the bottom of the BACK side seam as a starting point. The hem line needs to meet the CENTRE FRONT at a right angle.



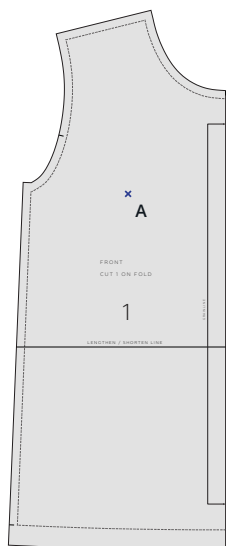
STEP 5

Remove the BACK piece.

Add seam allowance to the side seam and hem allowance to the hem (p 16).

ADDING DARTS

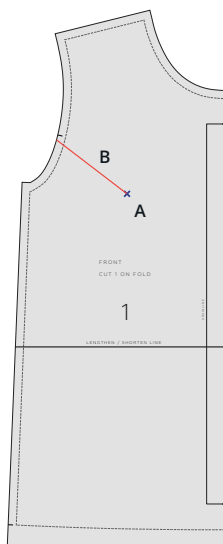
You may want to add a dart to a garment that does not have one. This will give you a more fitted shape around the bust. The process is the same as doing a Full Bust Adjustment (FBA), but at the end you can choose to reduce the fullness at the hem if you like.



STEP 1

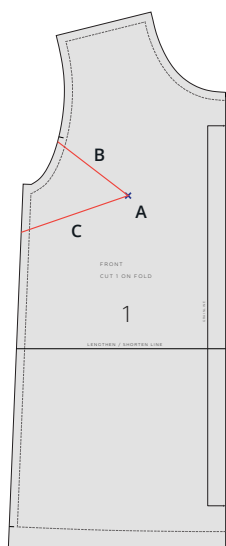
Mark the BUST APEX point on the pattern. You can find this by referring to your toile or original garment.

We will call this point **A**.



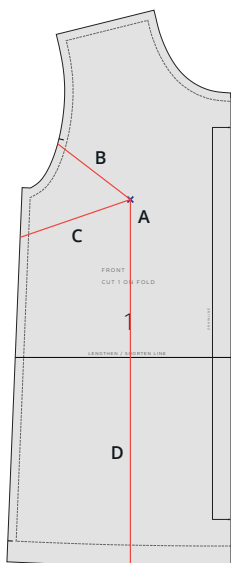
STEP 2

Draw a line from the armhole to point **A**. Using the notch on the armhole is a good option, or another point in the lower third of the armhole. We will call this line **B**.



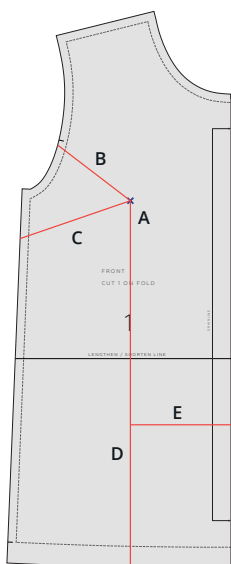
STEP 3

Draw a second line from point **A**, this time to the upper section of the side seam. This is where the dart will be so keep this in mind when drawing your line. We will call this line **C**.



STEP 4

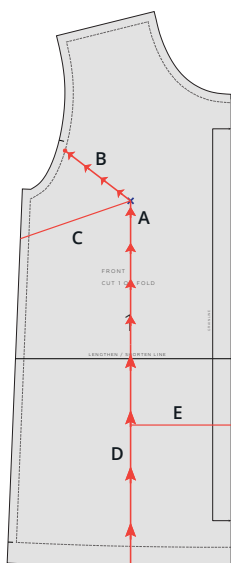
Draw a line straight down from point **A**, parallel to the grainline, to the hem. We will call this line **D**.



STEP 5

The alteration so far is preparing the pattern to add width to the bust line. You will also need to add some length to the bust. This is because we need more fabric across the bust both horizontally and vertically.

Mark a line one third of the way up line **D** from the hem line, perpendicular to the grainline. We will call this line **E**.

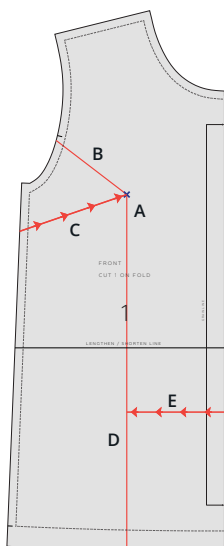


STEP 6

From the hem line, cut up line **D**. When you get to the BUST APEX POINT (**A**), turn and cut along line **B**.

Slow down as you approach the STITCH LINE. Stop cutting about 1mm from the STITCH LINE.

Cut in from the seam allowance on the armhole towards the point you stopped cutting on line **B**. Don't cut through - leave a small 1-2mm 'hinge' of paper that keeps the pattern piece intact.



STEP 7

Cut along line **C** from the side seam. Leave a small paper hinge at the BUST APEX POINT (**A**).

Cut along line **E**. Mark the top of the piece if there aren't markings that identify the top and bottom of the piece so that you don't get confused when you put the pieces back together.

HOW MUCH TO ADD

You need to work out how much you need to add to the pattern to fit your bust cup size. If using an **In the Folds** pattern, for the A-J size range, if you have a C cup bust cup size, you will need to add 1 cup size (i.e. 2.5cm / 1in), for a D cup bust cup size, you will need to add 2 cup sizes (i.e. 5cm / 2in) and so on. For the G-P size range, a FBA may be required for E cup bust size and larger.

This is the total amount you need to add to the pattern. The FRONT piece is cut as a pair so you will need to add half of to each side of the pattern. Divide the amount to add by 2 and record it. This is the amount you will be adding to the pattern.

AN EXAMPLE

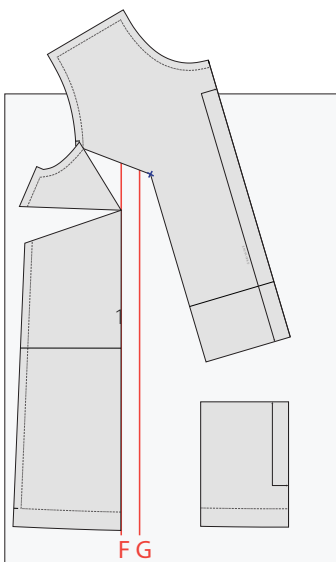
In the tutorial, we will use the example of changing the pattern from a B cup to a D cup. This means we will be adding 5cm (2in), or 2 cup sizes in total, and therefore half of this - 2.5cm (1in) - to the FRONT [1] pattern piece. When the piece is cut on the fold, the full amount required will be added. We have made the alteration on the top pattern to save space, but the same alteration can be made on the dress.



STEP 8

Take a piece of pattern paper that is larger than the pattern piece. Draw a vertical line in roughly the centre of the paper. We will refer to this as line **F**.

Draw a second line, parallel to the first, the distance you need to add away from the first line. We will call this **G**.

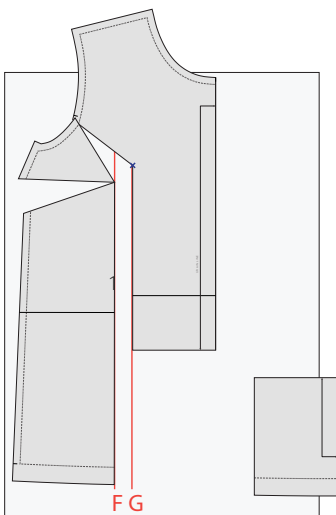


STEP 9

Now that you have cut through the lines on the pattern, you will be able to manoeuvre the pattern so that you can add the extra width you need at the bust.

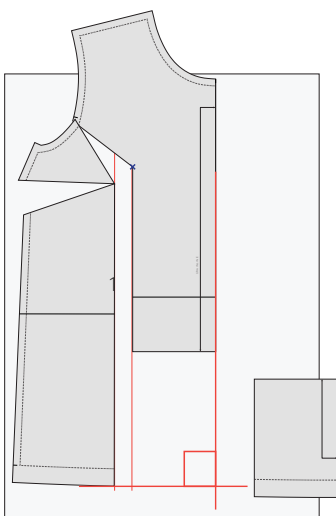
Carefully place the pattern onto the guidelines you drew in the previous step. To start, align line **D** on the pattern (the side of line **D** that is on the dart side) with line **F**.

Tape or glue in place (this section of the pattern only). If you don't want to add width to the hem line, only tack this section down temporarily - you will move it again in a few steps.



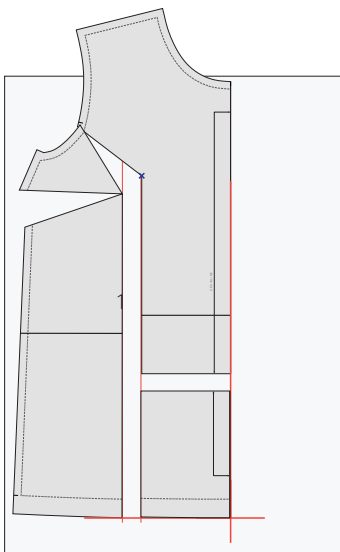
STEP 10

Carefully move the other side of the pattern piece until the other side of line **D** (closest to CENTRE FRONT) lines up with line **G**. When everything is flat lined up, tape this section of the pattern in place.



STEP 11

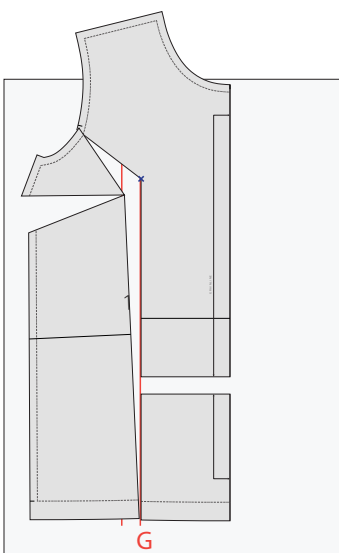
Take a ruler and extend the CENTRE FRONT line (along the CUT LINE) onto the paper underneath. Do the same for the hem line. The two lines will intersect at 90 degrees.



STEP 12

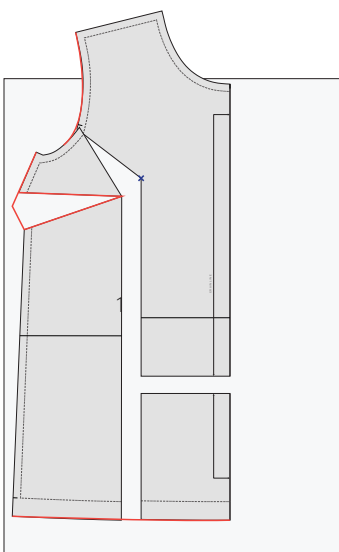
Take the section of the pattern you cut off in STEP 8 and line up the corner with the lines marked in STEP 11.

Tape or glue in place.



STEP 13

If you would prefer not to add the additional width to the hemline, rotate the side section so that the hem line stitch line meets line **G**. Tape or glue in place.



STEP 14

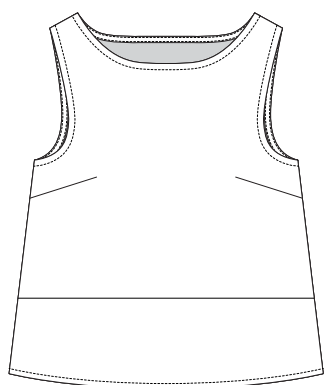
Draw in your dart arms by joining the dart notches to the original dart point and extending the lines until they intersect. Check that this is the correct dart point positioning for your body.

Fold the dart (as if it has been sewn) to true the side seam and create the dart shaping (p 27).

PANEL LINES

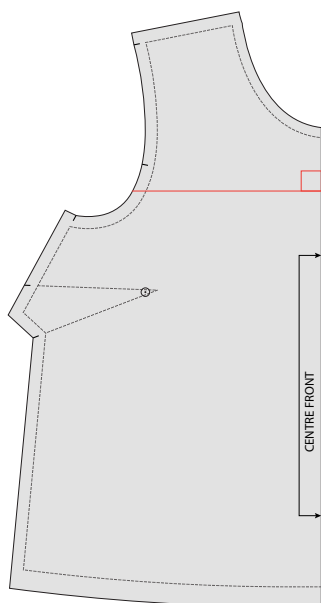
Panel lines can be used instead of darts, or can be used alongside darts as a design feature. Panel lines can be combined with other techniques (such as adding pleats or gathers) to add interest to your design.

HORIZONTAL PANEL LINE



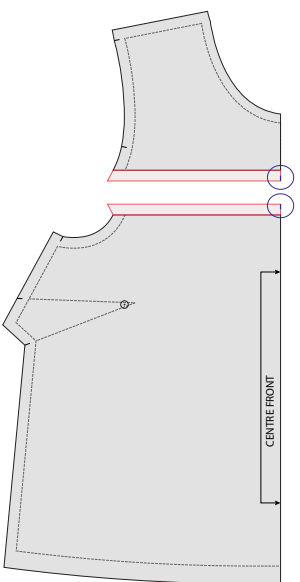
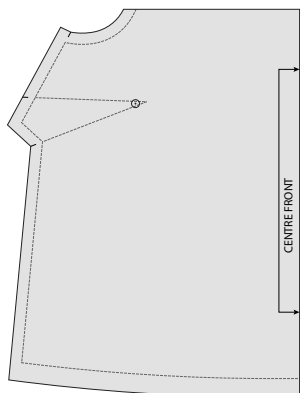
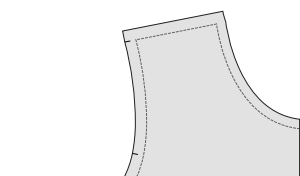
Panel lines can be created to add interest to a design or to alter the fit of a garment (as is the case when darts are incorporated into panel lines). Horizontal panels will not alter the shape or fit of a garment, but can create an interesting visual detail. Consider using a technical sketch of your garment to experiment with the position of the seam. Panels can be cut from different fabrics to create striking designs, for example one panel may be cut in a sheer fabric while another is cut in opaque fabric.

Alternate fabric treatment can also be added to different panels, for example gathers or pleats can be added to the lower panel to alter the silhouette.



STEP 1

Draw a line in the position you would like your panel line. For a horizontal line it will need to meet CENTRE FRONT at a right angle.



STEP 2

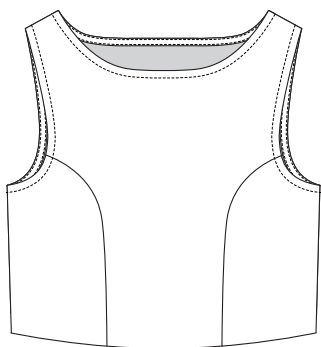
Cut through the panel line. If you would prefer to keep your pattern intact, you can trace the two pieces onto separate pieces of pattern paper.

STEP 3

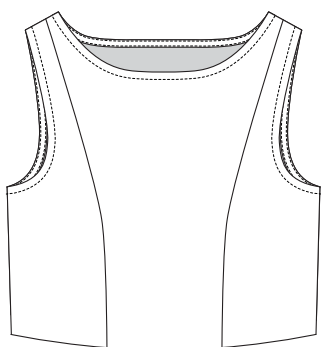
Add seam allowance to the cut edge on each piece (p 16). Mark a notch at CENTRE FRONT on the panel seam allowance on each piece.

PRINCESS PANELS

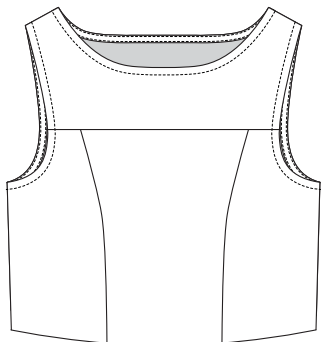
a



b



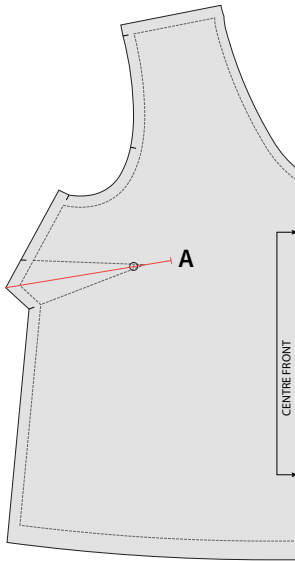
c



Princess panels are panels that are shaped around the bust to create a close fitting silhouette without the need for darts. They can also be an interesting design detail.

Princess panels can cut through the pattern from the shoulder line to the waist **(a)**, or they can cut through the pattern starting at the armhole and running down to the waist **(b)**. The method to create them is the same. Keep in mind that princess panels from the armhole **(b)** can be a little trickier to sew because the curves are rounder.

Princess panels can be combined with other panel lines to add interest to a design. For example, adding a horizontal panel line **(c)**. See p 75.



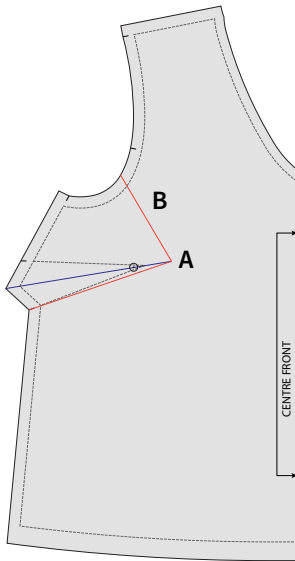
STEP 1

Draw a line through the centre of the dart, extending to the BUST APEX POINT.

Point placement will vary from pattern to pattern.

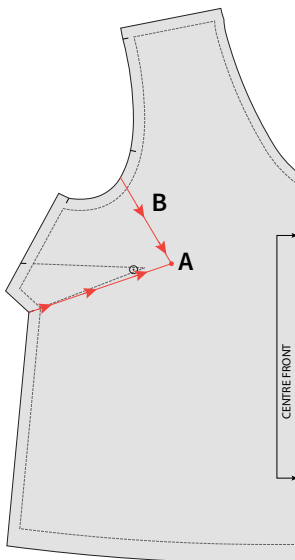
On **In the Folds** patterns for a B cup, this is normally 2.5cm (1in) beyond the tip of the dart point. For a D cup, this is normally 5cm (2in) beyond the tip of the dart point.

We will call the BUST APEX POINT **A**.



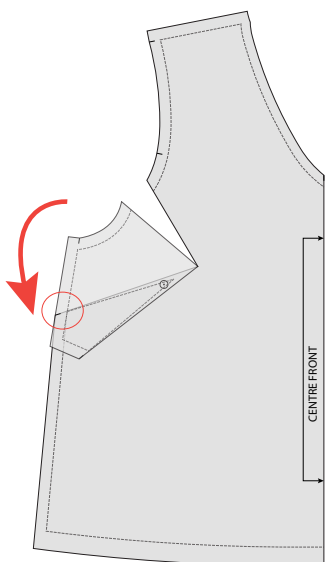
STEP 2

Draw a straight line from the lower dart arm notch to point **A**. Draw a second line from point **A** through the armhole. We will call this line **B**. This line is where the panel line will cut through the armhole, so consider this when marking it. For princess panels, this is usually in the lower third of the armhole.



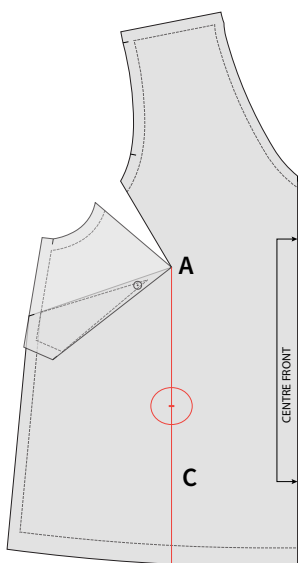
STEP 3

Cut along the lower dart arm, stopping 1-2mm from point **A**. Cut along line **B** from the armhole, stopping 1-2mm from point **A**.



STEP 4

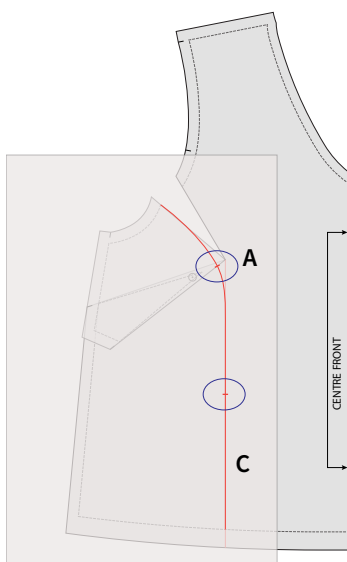
Rotate the cut section so that the upper dart arm lines up with the lower (cut) dart arm. Tape or glue in place.



STEP 5

Draw a line from point **A** to the hemline, parallel to CENTRE FRONT. We will call this line **C**. Mark a notch on the line, roughly halfway between point **A** and the hem. This will become a balance point (a notch that helps you join pieces together correctly). If making this alteration on a dress or longer garment, you may want to mark multiple balance points.

a

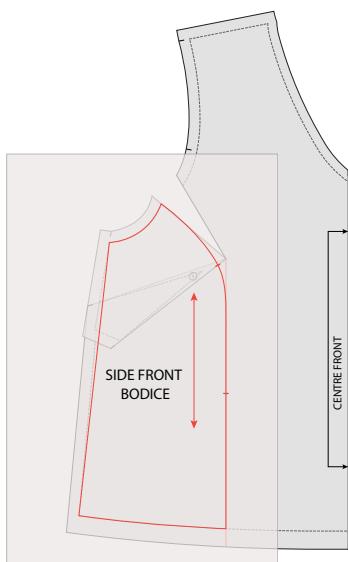


STEP 6

a Take a piece of pattern paper and trace the SIDE FRONT BODICE piece. Draw a line that follows the lower dart arm at the armhole and gradually curves as it approaches point **A**. You will need to start curving the line a couple of centimetres back from point **A** and it may take a couple of attempts. Once you reach Line **C** trace straight to the hemline. As you can see, this shaves a small amount off the piece to create the curve. More on this on p 73.

Trace the balance notch and add a second notch at point **A**.

b

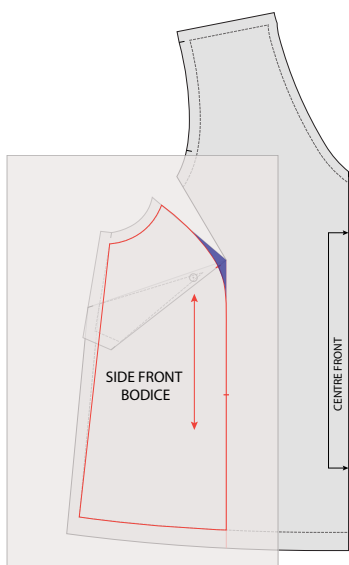


b Trace the remainder of the piece - the armhole, hemline and side seam. There may be slight seam shaping from the dart on the side seam - re-draw the side seam as a straight line.

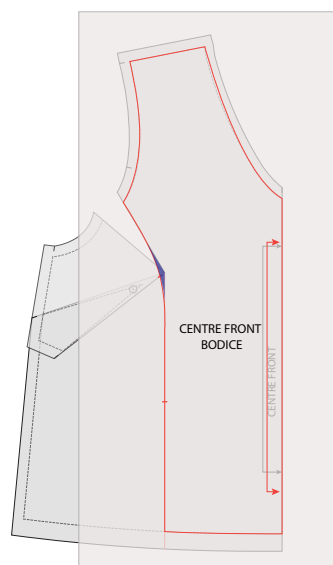
Mark the grainline parallel to the CENTRE FRONT.
Label the piece **SIDE FRONT BODICE**.

CREATING A SMOOTH CURVE

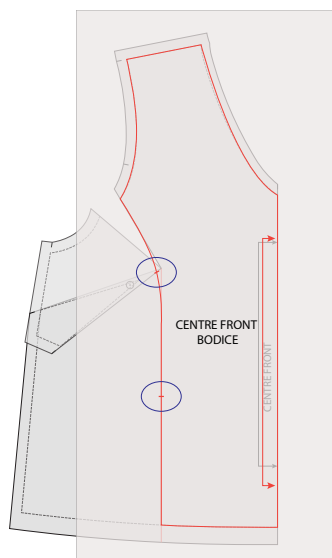
a



b

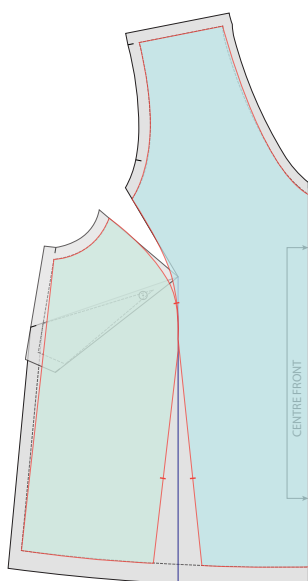


As you saw in STEP 6, a small amount of the pattern has to be removed to create a smooth curve on the SIDE FRONT BODICE (**a**). This is marked in blue on the illustrations above. When creating the curve on the CENTRE FRONT BODICE (**b**) a small amount needs to be added to create the curve. This means that the difference is evened out between the two pieces as some is added to one (**b**) and some is removed from the other (**a**).



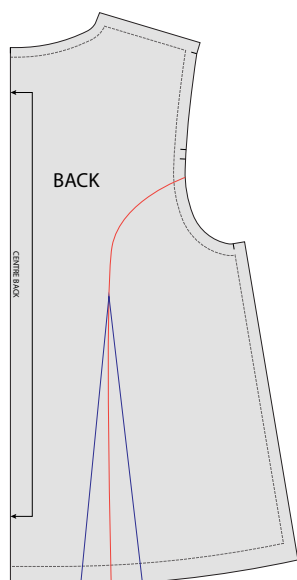
STEP 7

Take another piece of pattern paper and trace the other side of the pattern piece to create the CENTRE FRONT BODICE. Trace notches and grainline.



STEP 8

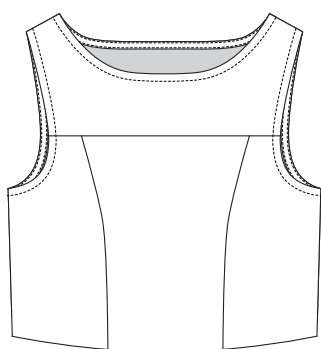
For a more fitted waist (which is common in styles with princess panels, the shape of the panel lines below the bust point can be altered to reduce the waist circumference. We suggest making a toile to work out how much width you would like to remove.



STEP 9

If you would like princess panels on the BACK too, draw the line directly onto the pattern (as there will be no bust dart to work with), turning the waist dart into the panel if the garment has a waist dart.

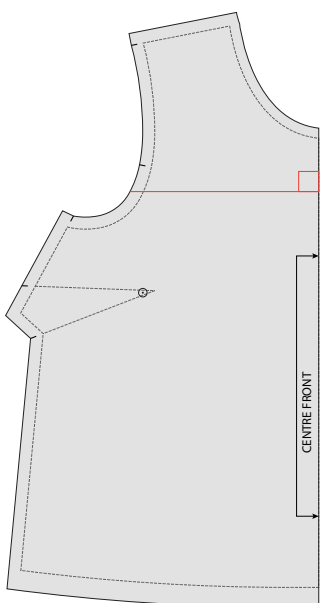
PRINCESS PANEL VARIATION



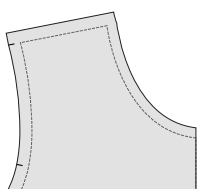
Once you get the hang of creating panel lines, there are endless ways they can be combined to create interesting and unique designs. In this tutorial, we will show you how to combine a horizontal panel line with a princess panel.

STEP 1

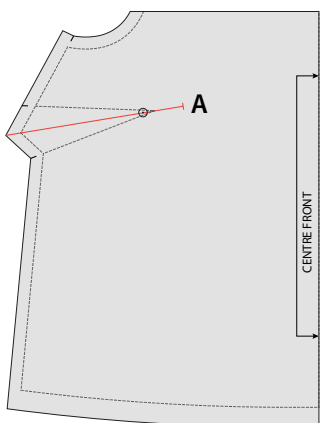
Mark the horizontal panel line, meeting the CENTRE FRONT at a right angle.



a



b

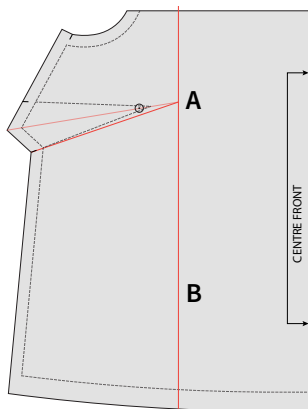


STEP 2

a Cut through panel line.

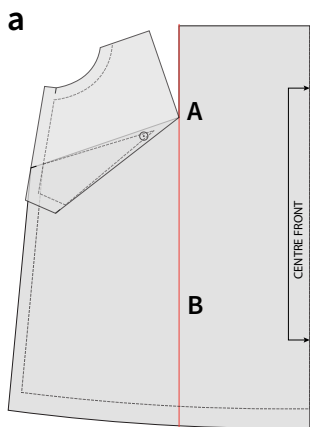
b Draw a line through the centre of the dart, extending to the BUST APEX POINT.

We will call the BUST APEX POINT **A**.

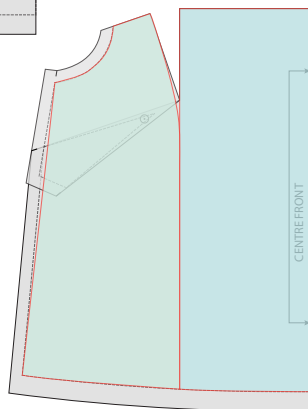


STEP 3

Draw a straight line from the lower dart arm notch to point **A**. Draw a second line from the cut panel line through point **A**, parallel to CENTRE FRONT. We will call this line **B**.



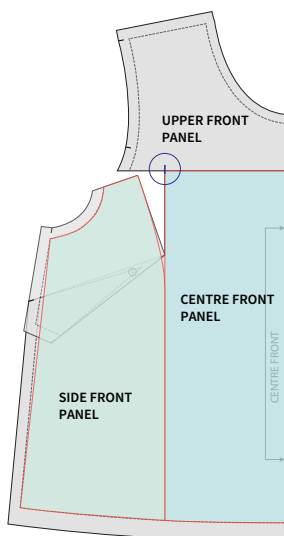
b



STEP 4

a Cut along the lower dart arm, stopping 1-2mm from point **A**. Cut along line **B** from the panel line, stopping 1-2mm from point **A**. Rotate the cut section so that the upper dart arm lines up with the lower (cut) dart arm. Tape or glue in place.

b The new dart will allow you to trace off the two panels. Look to p 73 for more information on how to do this.



STEP 5

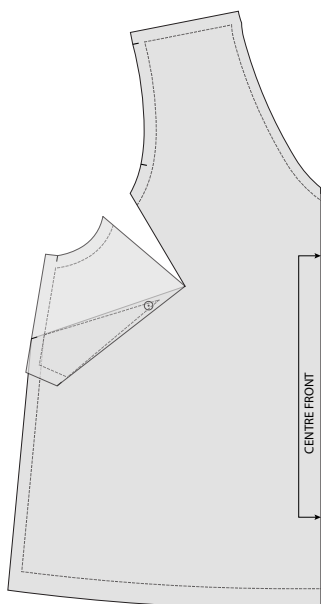
Line up the CENTRE FRONT PANEL with the UPPER PANEL you cut off in STEP 2 at CENTRE FRONT. Mark a notch on the UPPER PANEL to indicate where the panel line will be when sewing the pieces together.

Finalise the panel by adding grainlines, seam allowance, labelling, cutting instructions and checking and truing.

CURVED YOKE SEAM

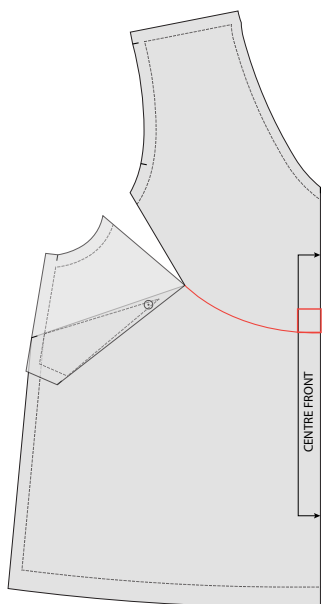


Once you get the hang of creating panel lines, there are endless ways they can be combined to create interesting and unique designs. In this tutorial we will show you how to create a curved panel yoke seam using an armscye dart. You may then decide to add gathers to the lower section to change the silhouette of the garment (p 112).



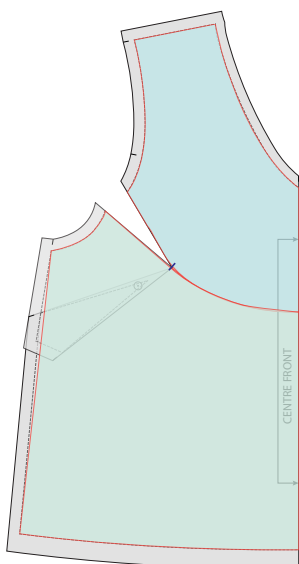
STEP 1

Use the tutorial on p 56 to move the dart to the armscye. We suggest picking a point about two-thirds down from the shoulder.



STEP 2

Draw a curved line from the BUST APEX POINT to CENTRE FRONT, meeting CENTRE FRONT at a right angle.



STEP 3

Trace off the two pieces, adding a notch where the curve splits open like a dart.

Finalise the panel by adding grainlines, seam allowance, labelling, cutting instructions and checking and truing.

CHANGING THE SHAPE

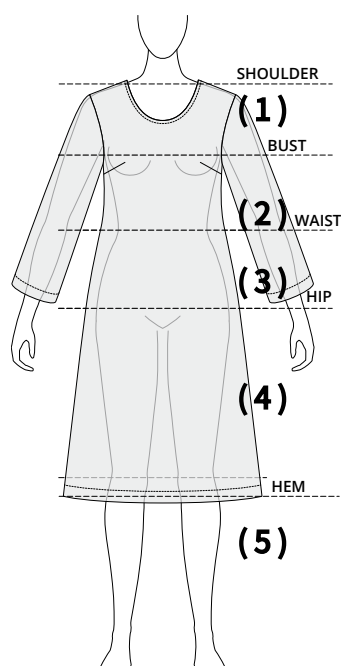
There are a number of ways to change the shape or silhouette of a pattern. This may be to achieve a better fit or to change the design or style of the garment.

WHERE TO ADD / REMOVE LENGTH

You may need (or choose) to add or remove length, and the location will depend on the proportions of your body or how you would like to alter the design of a garment. You may need to add / remove length:

- (1) Between the SHOULDER and the BUST LINE
- (2) Between the BUST LINE and the WAIST LINE
- (3) Between the WAIST LINE and the HIP LINE
- (4) Between the HIP LINE and the HEM LINE
- (5) By adding or removing length from / to the HEM LINE

For boxy designs, it may not be crucial to remove the length from the exact position, but when there are seam shaping or design features in particular positions, it's a good idea to add / remove length in the correct location so that the feature (for example, the waistline or a dart) remains in the correct position.



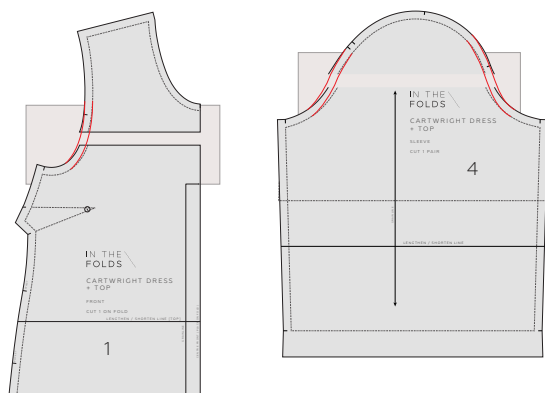
LENGTHEN AND SHORTEN LINES

There are usually LENGTHEN / SHORTEN lines marked on patterns, but if you are working on a self-drafted pattern, you will need to mark them yourself. Make sure that they run perpendicular to CENTRE FRONT / CENTRE BACK. It is also a good idea to avoid running through notches or other significant markings such as pocket placements.

ADDING OR REMOVING LENGTH FROM THE HEM

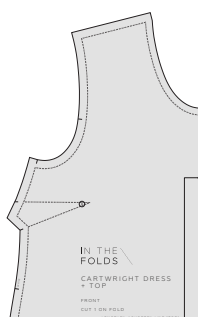
For most sewing patterns, it will be suggested that you add or remove length from within the pattern piece, rather than simply adding or removing length from the hem. This method is most likely to keep the design and its proportions intact. In some cases, you may achieve the look you want by adding or removing length directly from the hem. It is a good idea to think about the angle of the side seams when adding length. For an A-line garment, if you add length to the hem, the skirt circumference will increase by a lot, while if you add length within the piece, the hem circumference will remain the same. Neither option is incorrect, you just need to select the option that works for the design you have in mind. For a garment with straight side seams, you are likely get a similar outcome with both options.

To add or remove length from the hem, do not follow this tutorial. Add or remove the required amount and then check and true the pattern to ensure a smooth flow through from front to back.



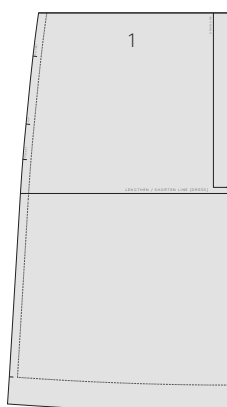
GETTING STARTED

The example illustrates the process of adding length to the waist section of a dress. The process is the same if you are adding length to another section of the pattern. If lengthening the section between shoulder and bust, you will need to add the same amount to the sleeve cap. If altering the sleeve cap, make sure to check that the sleeve still fits the armhole after making the alteration.



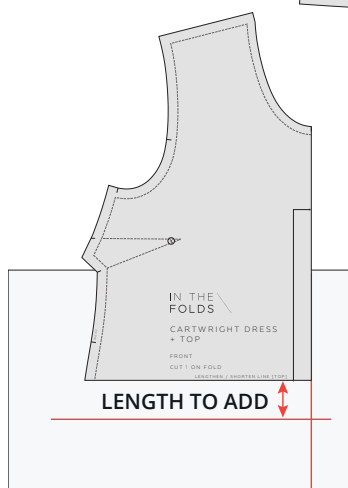
STEP 1

Cut through the LENGTHEN / SHORTEN lines on both the FRONT [1] and BACK [2] pieces at the position where you need to alter the length. If you are adding length in multiple places, start with one, and once the alteration is done, move on to the next (this will help avoid pieces getting lost or mixed up).

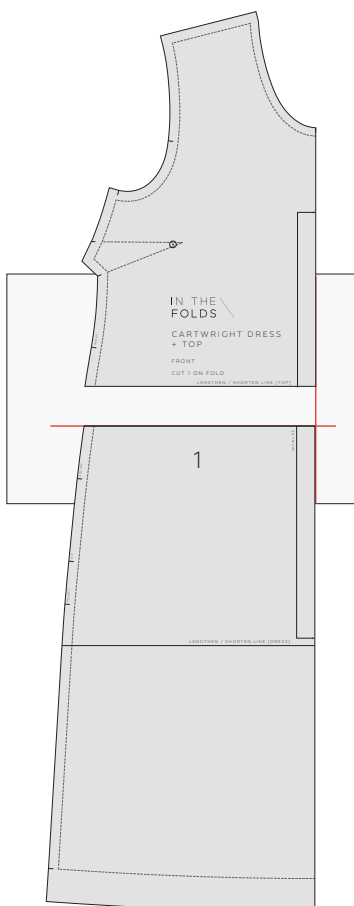


STEP 2

Take the bodice section and tape or glue a piece of paper to the cut line. Make sure there is enough paper extending past the pattern to add your length extension. Leave some paper either side too.

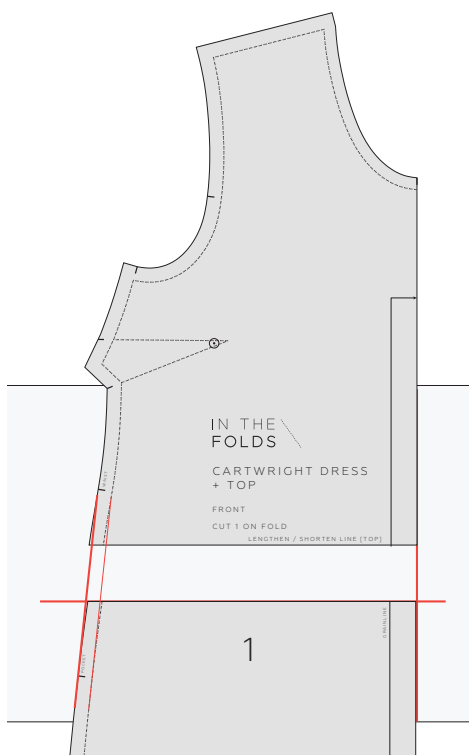


Extend the CENTRE FRONT / CENTRE BACK of the bodice onto the attached paper. Measure down from the cut line the amount you would like to add and mark a horizontal line, parallel to the cut edge and perpendicular to CENTRE FRONT/BACK. In the example, we are adding 5cm (2in) length, which means that the line is marked 5cm (2in) below and parallel to the cut line.



STEP 3

Attach the lower section of the pattern to the paper. Line up the cut edge of the pattern with the guideline marked in STEP 2. Use the CENTRE FRONT / CENTRE BACK to ensure that you line the pieces up correctly. Glue or tape in place.

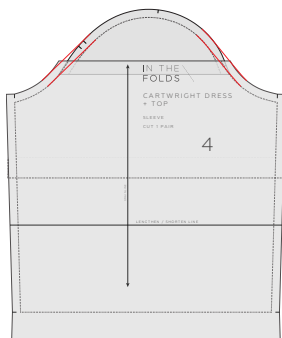


STEP 4

Re-draw the side seam lines with smooth lines over the adjustment. Do this for both the STITCH LINE and the CUT LINE.

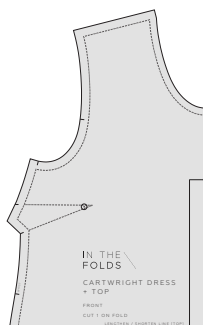
Cut off any excess paper that is outside of the new CUT LINES.

Check all seams are the correct length by 'walking' the pattern pieces as if you were sewing them together (p 22).



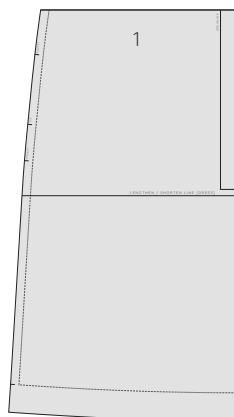
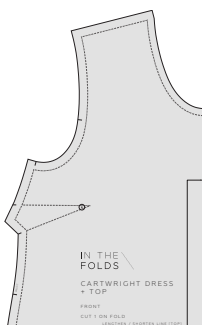
GETTING STARTED

The example illustrates the process of removing length from the waist section of a dress. The process is the same if you are removing length from another section of the pattern. If shortening the section between shoulder and bust, you will need to remove the same amount from the sleeve cap. If altering the sleeve cap, make sure to check that the sleeve still fits the armhole after making the alteration.



STEP 1

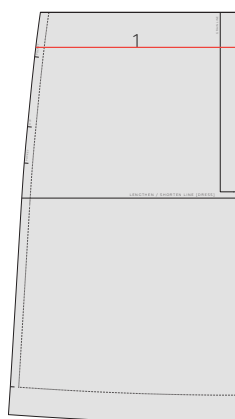
Cut through the LENGTHEN / SHORTEN lines on both the FRONT [1] and BACK [2] pieces at the position where you need to alter the length. If you are removing length from multiple places, start with one and once the alteration is done, move on to the next (this will help avoid pieces getting lost or mixed up).



STEP 2

Determine the amount of length you would like to remove. Measure this distance down from the cut line on the lower pattern piece and mark a horizontal line parallel to the cut line.

In the example, we are removing 5cm (2in), which means that the line is marked 5cm (2in) below and parallel to the cut line.

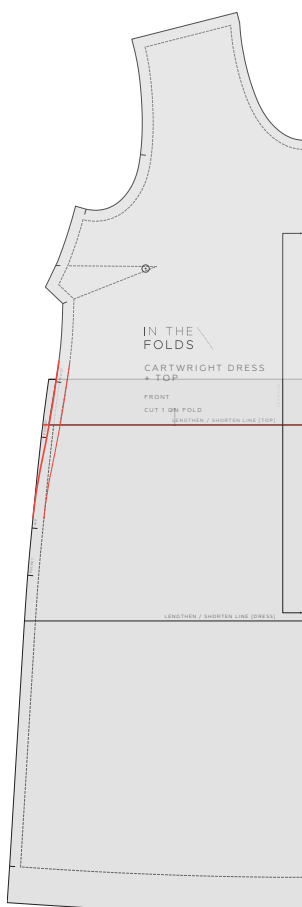




STEP 3

Move the upper part of the pattern piece down to the line marked in the previous step. Use the CENTRE FRONT / CENTRE BACK to ensure that you line the pieces up correctly.

Glue or tape in place.



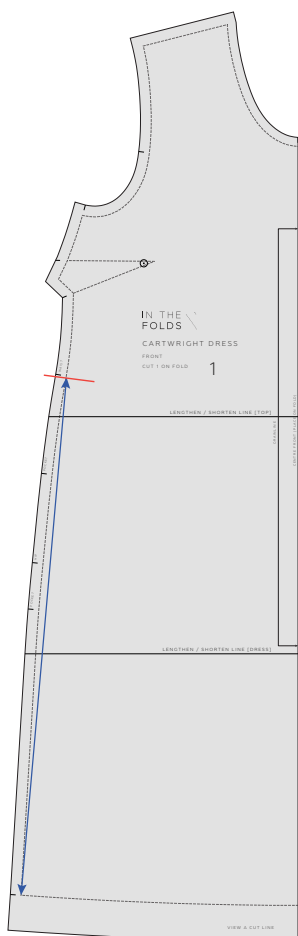
STEP 4

Re-draw the side seam lines with smooth lines over the adjustment. Do this for both the STITCH LINE and the CUT LINE. Cut along new CUT LINE to remove excess paper.

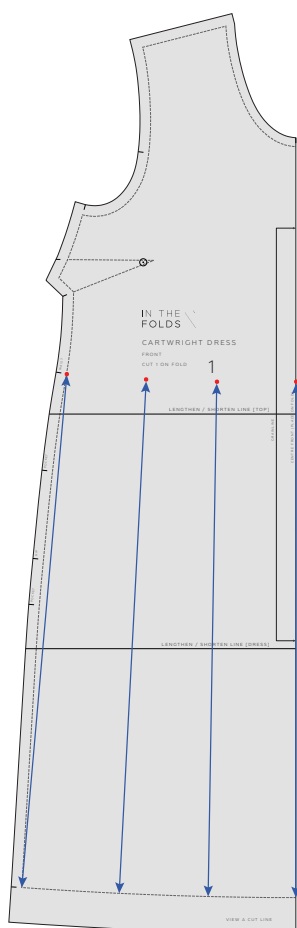
Check all seams are the correct length by 'walking' the pattern pieces as if you were sewing them together (p 22).

CROP IT

You can crop a dress pattern to create a top, a shirt into a shorter top, or a pair of pants to make a pair of shorts.



STEP 1



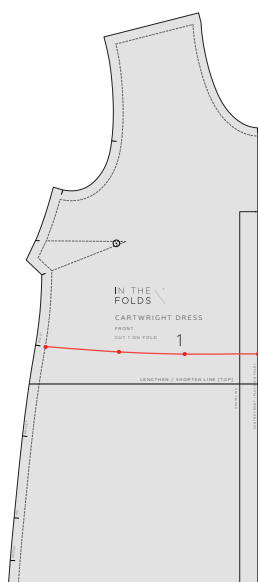
STEP 2

STEP 1

Decide where you would like the hem to finish on the FRONT [1]. Mark the point on the side seam and measure the distance from the hem.

STEP 2

Measure up from the hem at several points across the pattern piece. Mark the new hem line with points at regular intervals.



STEP 3



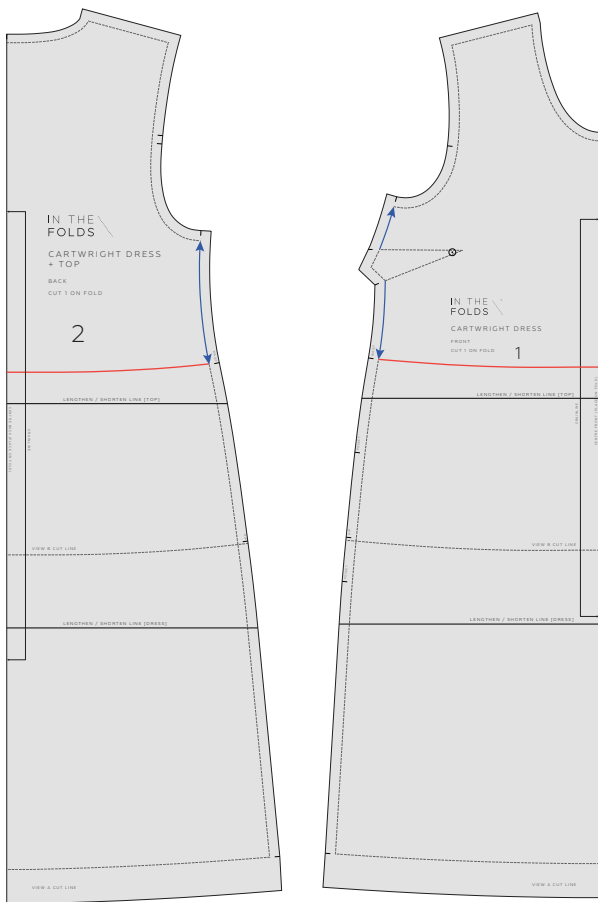
STEP 4

STEP 3

Join the points to create a smooth seam line.

STEP 4

Repeat STEPS 1-3 on the BACK [2] using the same measurement as STEP 1 to ensure the hem line aligns at the side seams.



STEP 5

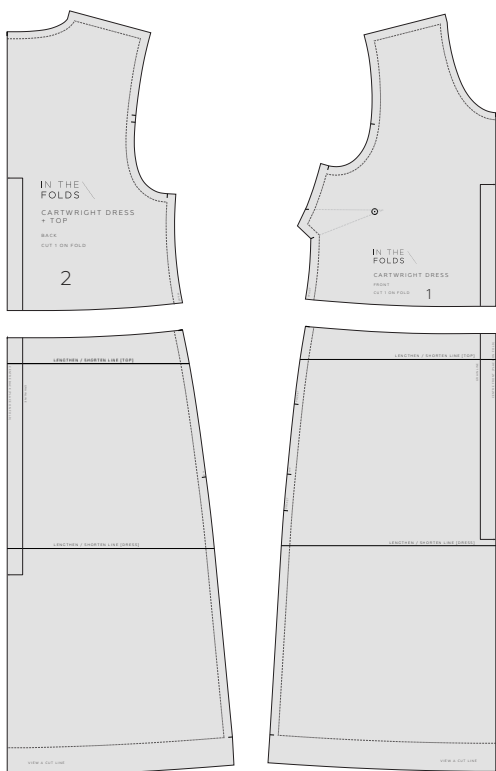
Measure the side seam STITCH LINE or walk the seams to check that the panel line is in the same position on the FRONT [1] and BACK [2].



STEP 6

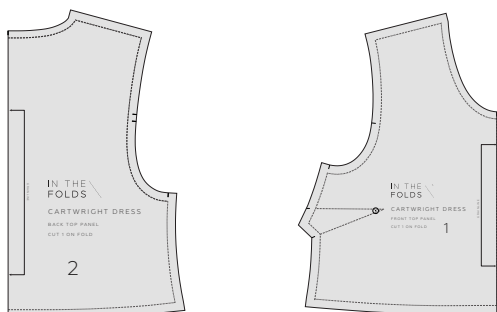
Line up the FRONT [1] and BACK [2] as if they have been sewn at the side seam (STITCH LINE on STITCH LINE) to check the curve of the new hem line.

If the line comes to a point, smooth it out by drawing a curved line over the point. A French curve will help if you have one. Use a tracing wheel to transfer the new shaping onto the overlapped parts of the pattern.



STEP 7

When you are happy with the new hem line, cut through the pieces to remove the lower section of the pattern.



STEP 8

Add hem allowance (p 19) to the new hem line.

BOXIER FIT

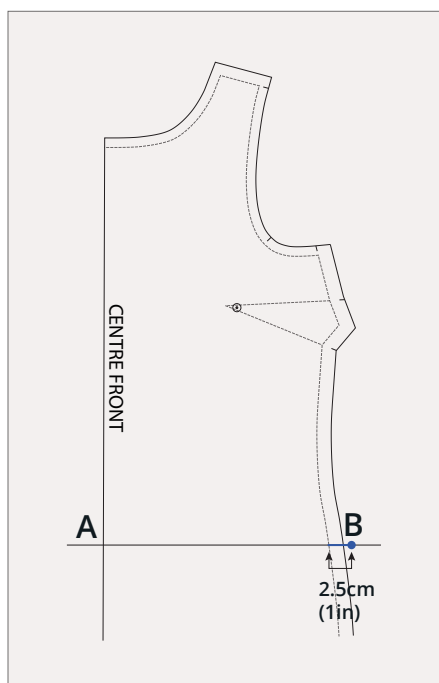
A boxier fit can be created by removing side seam shaping and creating a straight side seam. If you have a toile (or the original garment you traced the pattern from) to refer to, consider how much you would like to increase the hem circumference by.

If you're not sure, hold a tape measure around yourself in the position of the hem at the hem circumference. Stand in the centre of the tape measure. This will give you a feel for how much fabric will be in the hem.

Once you have worked out how much extra fabric you would like to add to the hem, divide the amount by 4 - this amount will be evenly added to the FRONT and BACK at both side seams to keep the pattern shape balanced.

HOW MUCH IS TOO MUCH?

This will depend on the pattern you are working with. There will come a point where the shape of the pattern is going to become too distorted by adding with to the side seam hem (imagine wearing a top that is cut like a triangle) and you will need to add more volume using the slash and spread technique (p 110). As a rough guide, we suggest adding no more than 7.5cm (3in) to each piece (i.e., 30cm (12in) increase in total hem circumference), but keep in mind this will depend on the pattern and garment type and it's always best to make a toile to check the pattern when making major changes to a pattern.



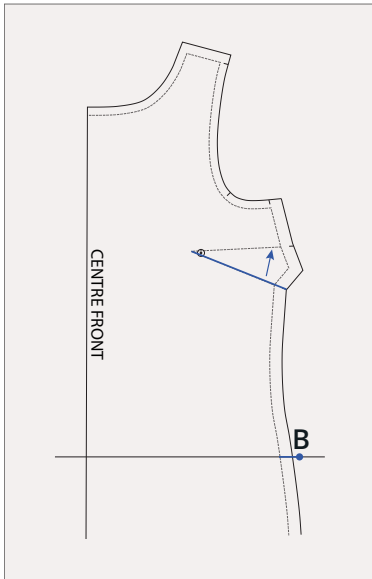
STEP 1

Draw a line perpendicular to CENTRE FRONT at the length you would like the garment, cutting through the side seam.

Mark a point **2.5cm (1in)** out from the side seam STITCH LINE, on the line marked from point **A**. This is the amount we are going to add to the side seam to make for a boxier fit.

We will call this point **B**.

a



STEP 2

a To create our new side seam, we will first need to fold out the dart as if it has been sewn. To do this, fold along the lower dart arm.

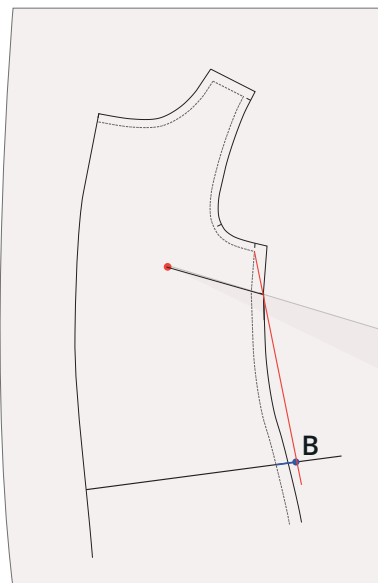
b



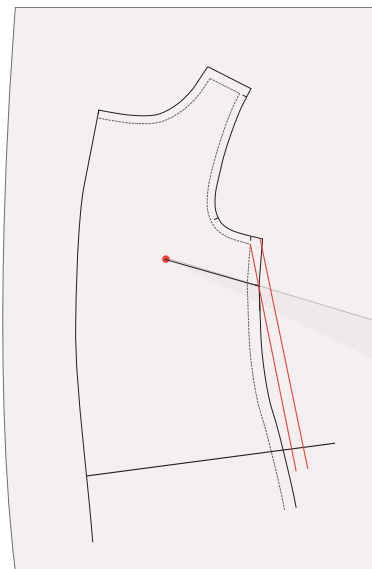
b Place the tip of the dart on the corner of a table (or a large book works too) and fold the lower dart arm so that it meets the upper dart arm.

Hold in place with a pin or masking tape.

c



c Draw a straight line from the top of the side seam STITCH LINE, where the armhole and side seam STITCH LINES intersect, down to point **B**. This will be your new side seam.

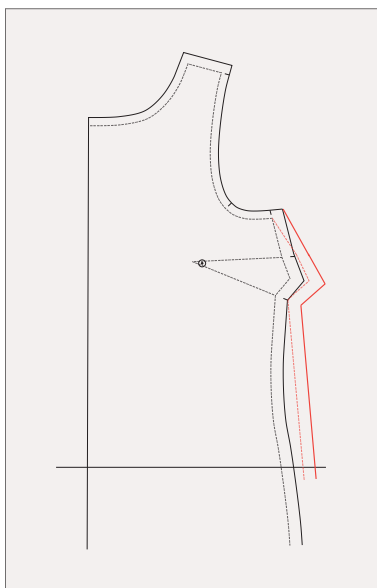


STEP 3

You can unfold the dart at this point, or add seam allowance while the dart is still folded. We like to add seam allowance at this point so that we can transfer the dart shaping to the seam allowance too.

Add seam allowance to the new side seam (p 16).

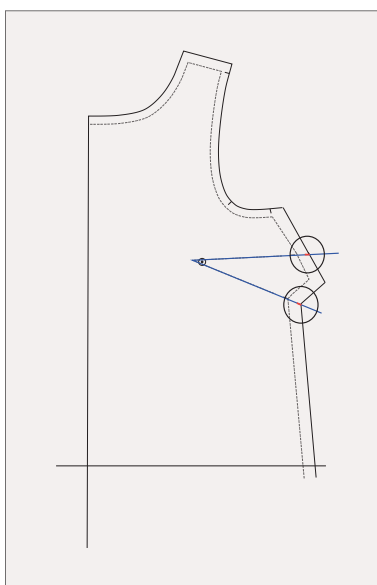
Use a tracing wheel to transfer the new side seam onto the folded section of the dart (p 27).



STEP 4

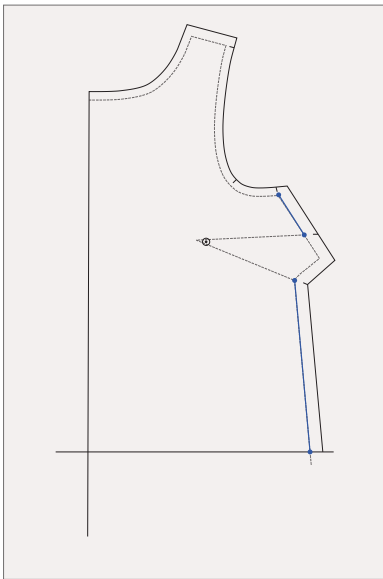
Unfold dart. You will see the dots made by the tracing wheel.

Take a ruler and join the dots to form a nice smooth line.



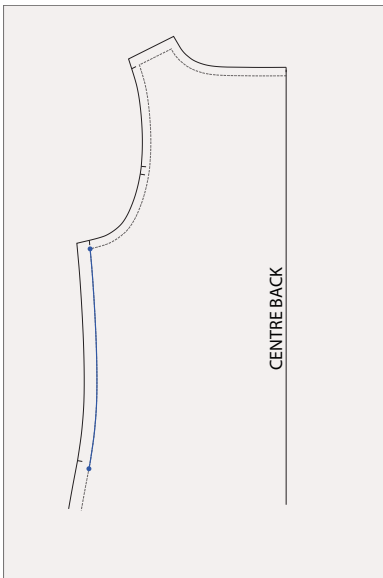
STEP 5

Extend the dart arms to the new side seam. Add new notches to indicate the dart arms.



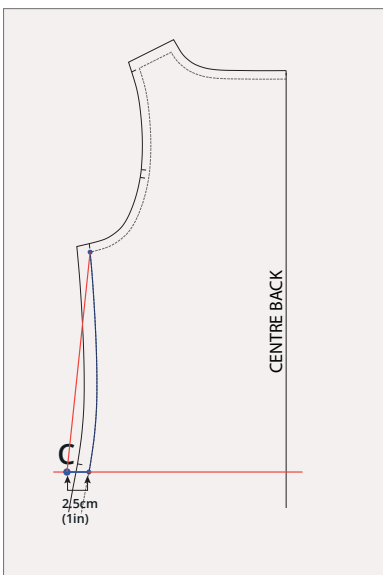
STEP 6

Measure the STITCH LINE above and below the dart and take note of each measurement. Add these two measurements together. This will give you the length of the side seam so that we can begin working on our BACK [2] pattern piece.



STEP 7

Measure down the side seam from the armhole on the STITCH LINE and mark the length found in STEP 10. We suggest using a tape measure turned on its side to find the length of a curved line.



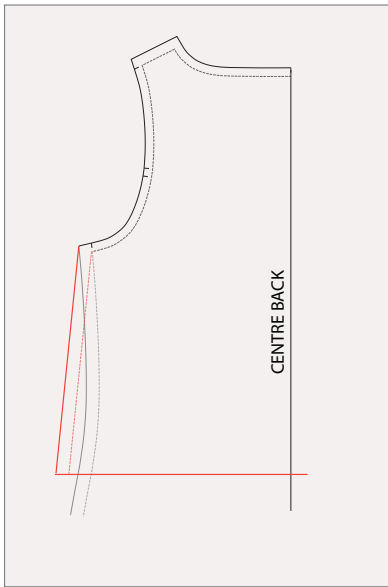
STEP 8

Draw a line that is perpendicular to the CENTRE BACK line and intersects with the point marked in STEP 7, extending through the side seam.

Mark a point **2.5cm (1in)** out from the side seam STITCH LINE on the marked line. This is the amount we are going to add to the side seam to give a boxier fit.

We will call this point **C**.

Create new side seam, drawing a line from the bottom of the armhole on the STITCH LINE to point **C**.



STEP 9

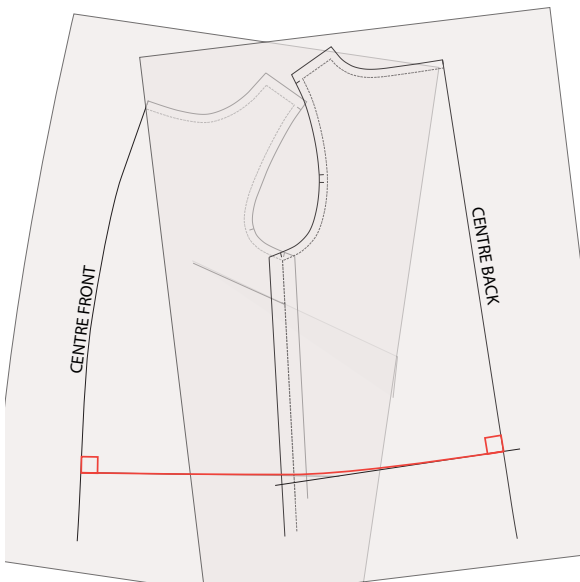
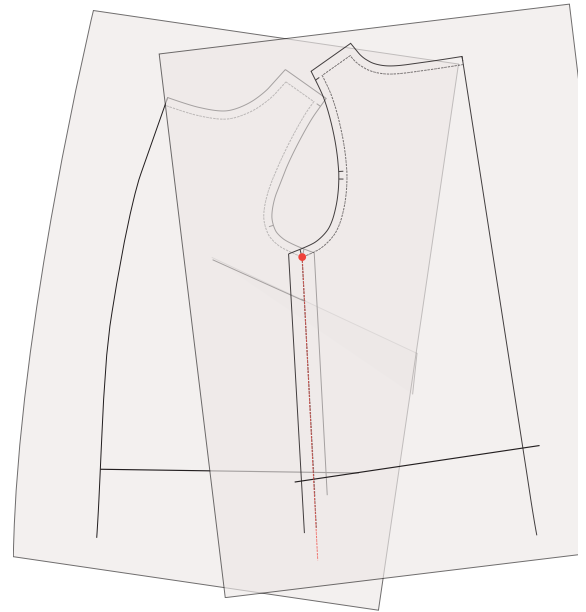
Add seam allowance to the new side seam. Make sure you add the same amount that was added to the FRONT [1] in STEP 3.

STEP 10

With the FRONT [1] dart folded in the same way we did in STEP 2, line up the side seam on the FRONT [1] and BACK [2] pattern pieces, STITCH LINE on STITCH LINE.

You will notice that the new hem lines come to a point at the side seam. We need to smooth this out (or 'true' the hem). This will give us a nice smooth curve for the hemline.

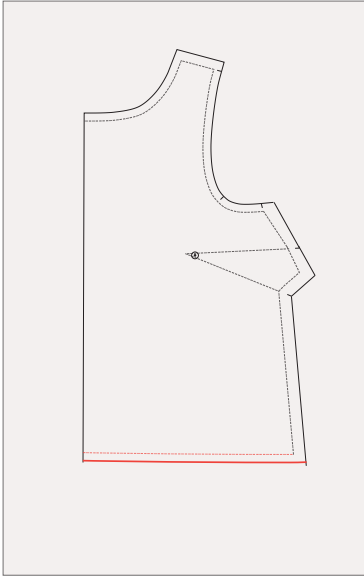
Hold pieces in place with pins or pattern weights.



STEP 11

Take a ruler and draw a nice soft curve from CENTRE FRONT to CENTRE BACK (p 22). Be sure to meet the CENTRE FRONT and CENTRE BACK lines with a right angle.

Please note, if your pattern has been altered for fit, you may need to drop the CF or CB hem point to create the smooth line required.

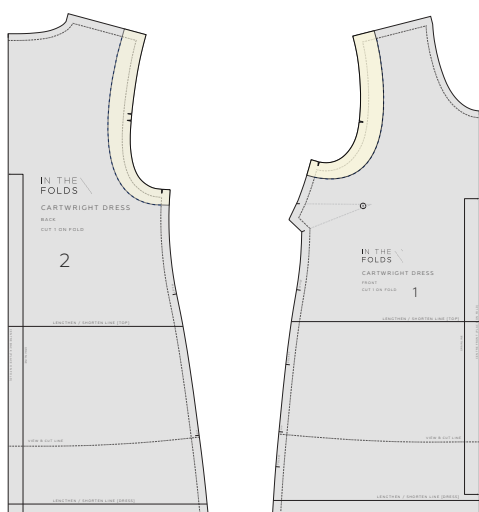
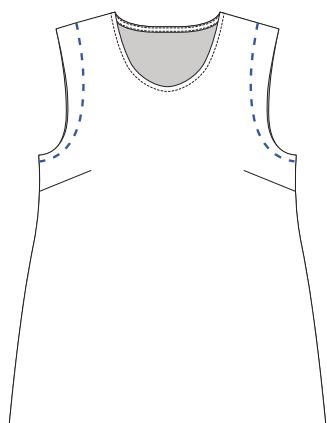
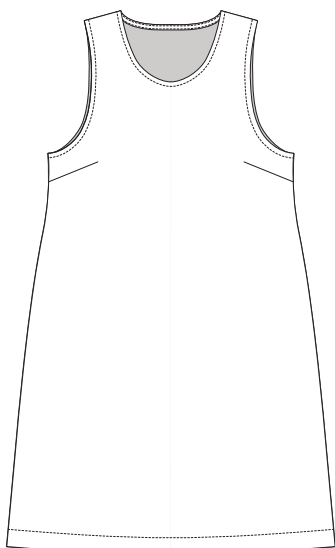


STEP 12

Add the amount of hem allowance (p 19) required for your selected finish.

Add grainline, pattern markings and cutting instructions.

MAKING A PATTERN SLEEVELESS



INTRO

To remove sleeves from a pattern, you need to cut fabric away from the shoulders and armholes.

When working on a pattern hack and deciding which pattern to start with it, it's useful to consider if you'd want a version of the pattern with sleeves later on, as it's much easier to make a pattern sleeveless than to add sleeves onto a pattern.

PREPARE FOR ALTERATION

If you have a toile or original garment, try it on to get an idea of where you would like your new armhole to sit on your body.

If you're using a toile, you can draw onto the fabric, then cut away the fabric to test. You may also need to take in some volume at the underarm, depending on the fit of the original garment.

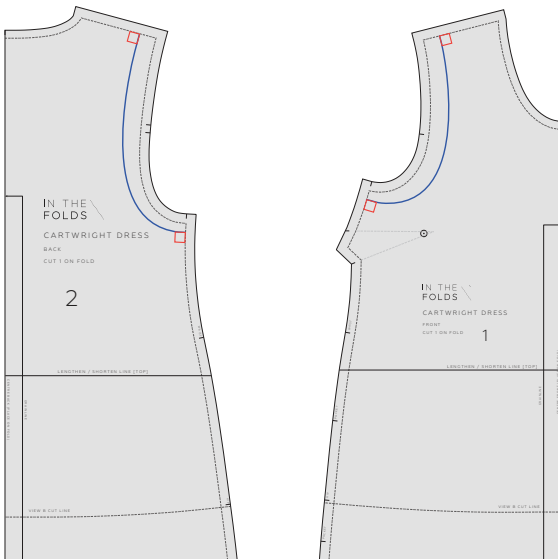
If you're using a finished garment, pin some stay tape on the dress to get a feel for how it will look. You could also use clothing in your wardrobe for reference.

Tip

If you can, cut off the excess fabric on the toile in one piece. Lay the pieces onto the pattern, taking into account whether or not it has seam allowance included.

STEP 1

Trace a copy of the FRONT [1] and BACK [2]. Transfer the new armhole onto the pattern, sketching a rough line at this stage.



STEP 2

If the pattern allows, square off the new armhole line at the side seams and shoulder. This will ensure the pieces form a smooth curve as they sew together. If the pattern shape doesn't allow, continue to STEP 3 and smooth the lines at that stage.



STEP 3

a Lay the pattern pieces together at the shoulder, STITCH LINE on STITCH LINE, as if they have been sewn.

Check and adjust the flow through of the line marked in STEP 1, ensuring that the lines meet smoothly and there are no sharp points or dips in the lines.

b Repeat at the side seam to check the flow through of the line under the arm.



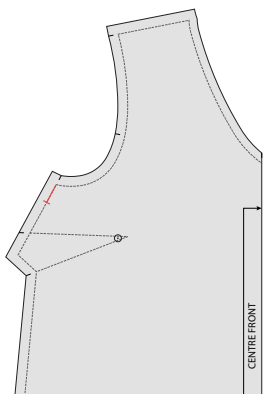
STEP 4

When finalising the pattern, it can be helpful to keep a draft copy to come back to.

Trace a copy of the pattern and add seam allowance to the new armholes. If you choose not to trace a copy, simply add seam allowance to the new armhole lines and cut off excess paper on the new CUT LINE.

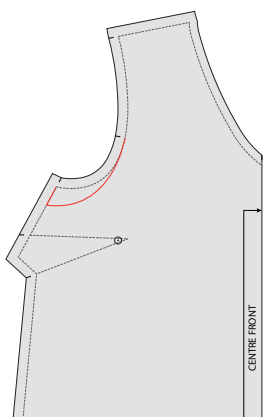
LOWERING THE ARMHOLE

The bottom of the armhole sitting too close to the armpit can make a garment uncomfortable to wear or can create unnecessary pulling. Before making this adjustment, consider whether it is just the armhole that needs to be lowered (everything else will stay the same), or if you require more length between the shoulder and the bust (p 80).



STEP 1

Work out how much you would like to drop the armhole by. It can be helpful if you have a toile (or the original garment) to refer to. Mark this point on the side seam **STITCH LINE**, measuring from the bottom of the armhole.

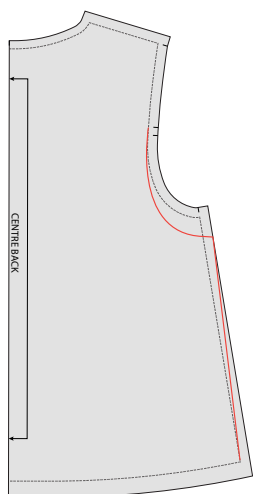


STEP 2

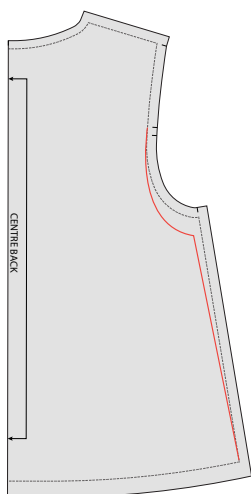
Re-draw the armhole from the point marked in STEP 1. The new line should transition back into the original armhole **STITCH LINE** around the notches.

Repeat on the **BACK**, dropping the armhole by the same amount.

a



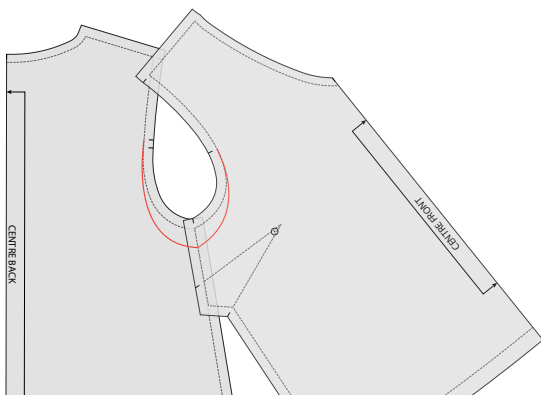
b



STEP 3

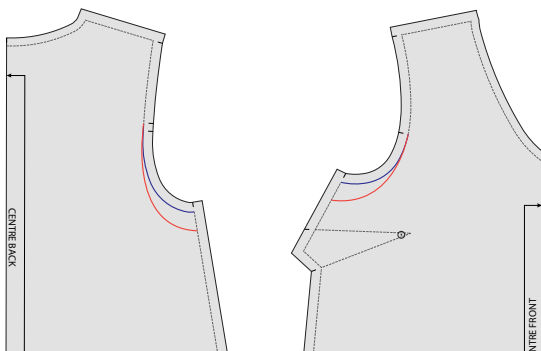
a Consider whether you also want to add more width at the side seam. We have illustrated this on the **BACK** pattern piece on the example as it is clearer to see without the dart that is on the **FRONT**.

b Alternatively, you may need to take some width out at the base of the armhole. This is more common in sleeveless styles. If you're not sure, leave it as it is in STEP 2 and make a toile to check the fit.



STEP 4

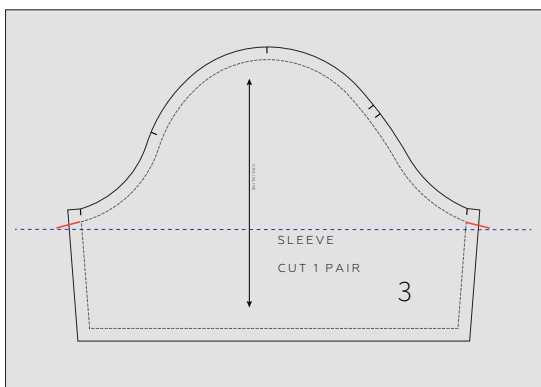
Check flow through of new armhole line from FRONT to BACK before continuing.



STEP 5

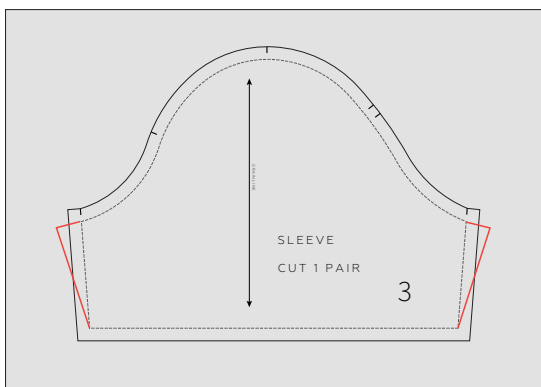
Using a tape measure on its side, measure the new armhole length on the FRONT (red) from the notch to the side seam STITCH LINE. Record the measurement. Repeat for the original armhole line (blue). Record the measurement. Find the difference between the two measurements. This is the amount we will need to add to the front of the SLEEVE.

Repeat for the BACK armhole.



STEP 6

Trace a copy of the SLEEVE. Extend the sleeve cap STITCH LINE by the amount found in STEP 5. When extending the line, make sure the end of the line on the front and back are in the same position vertically. This will ensure the underseams on the front and back of the sleeve are the same length.

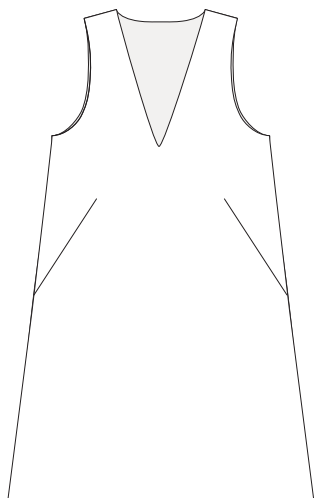


STEP 7

Join the end of the new line on each side to the original underseam line at the hem. If the line is too extreme, you may choose to add some width at the hemline.

Add seam allowance to the new lines and check the hem allowance is correct. If the underseam has changed shape, it is likely the hem will require hem shaping.

CREATE A V-NECK



INTRO

Use this tutorial to draft a v-neck on the front or back of your garment. You can also use this same technique to draft other neckline shapes.

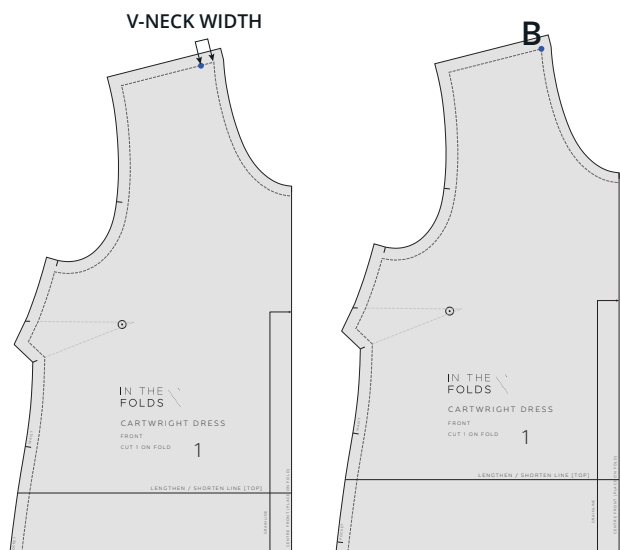
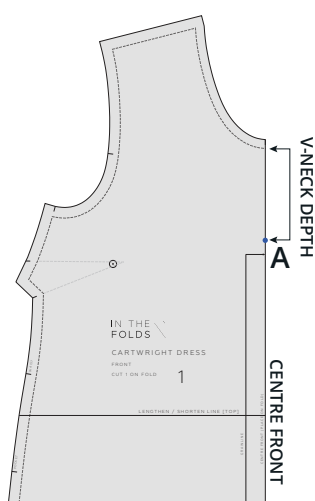
A v-neck can be finished with bias binding or a facing.

STEP 1

Take the FRONT [1] pattern piece.

Measure down from the STITCH LINE of the neckline on the CENTRE FRONT line and mark the finished depth of your v-neck. We will call this point **A**. Hold the pattern up to your body to check the depth. You can also reference other patterns or garments in your wardrobe if you have a v-neck you love.

In our example, we have marked point **A** at **10cm (4in)** down from the neckline STITCH LINE.

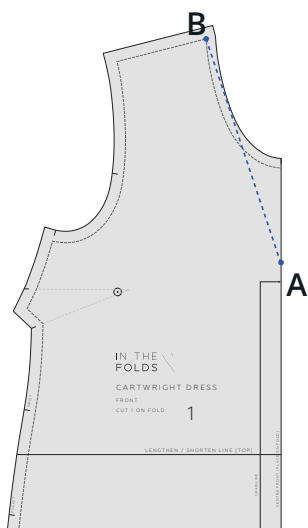


STEP 2

Measure outwards from the point where the shoulder STITCH LINE intersects with the neckline STITCH LINE and mark the finished width of your v-neck. Again, you can hold the pattern up to your body to check.

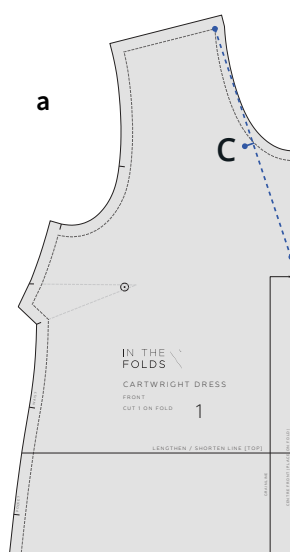
We will call this point **B**.

In our example, the Cartwright dress already has a wide neckline, so we're keeping the opening at the shoulder/neckline point.



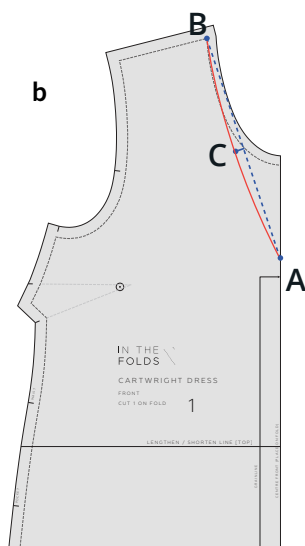
STEP 3

With a ruler, draw a faint broken line from point **A** to point **B**. We will use this as a guideline when drawing our v-neck.

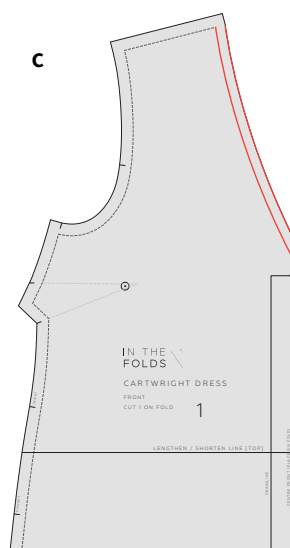


STEP 4

a Find the halfway point of the line marked in STEP 3 and mark a point. From this point, draw a **1cm (3/8in)** line towards the armhole, perpendicular to the dashed line. We will call this point **C**.



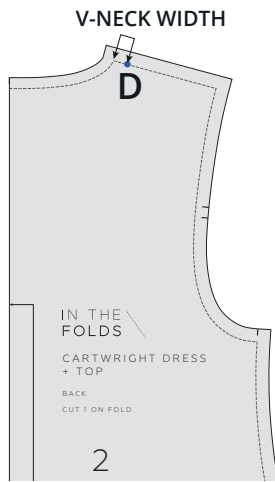
b Draw a curved line from point **A** to point **B** which intersects point **C**. The line should be a gentle curve. A French curve will help you get a nice smooth line.



c Add **1cm (3/8in)** seam allowance to the new neckline. Cut away excess paper.

If you haven't altered the width of the neckline, you've finished the hack! Skip to STEP 8.

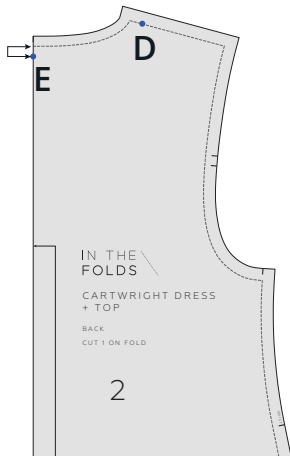
If you have altered the width of the neckline, you'll also need to adapt the back to match. Continue to STEP 5.



STEP 5

Take the BACK [2] pattern piece.

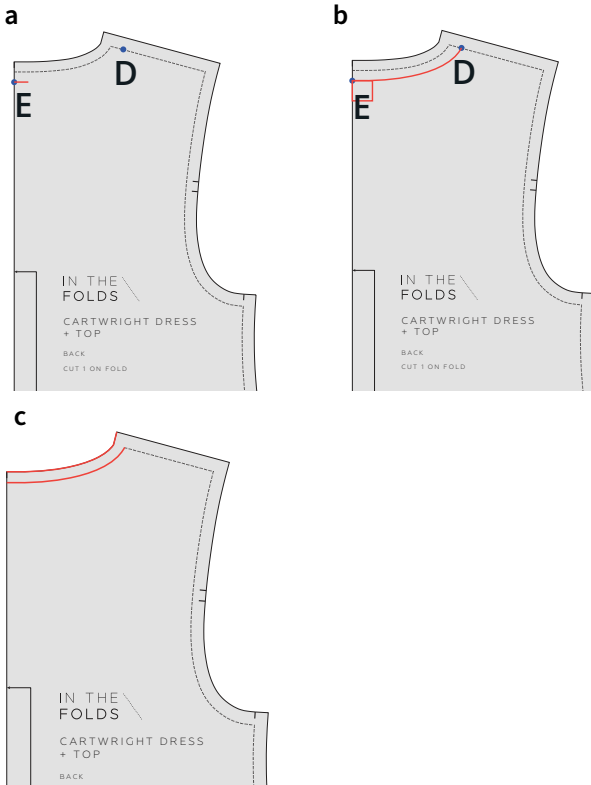
Using the same distance as in STEP 2, measure outwards from the point where the shoulder STITCH LINE intersects with the neckline STITCH LINE and mark the finished width of your v-neck. Let's call this point **D**.



STEP 6

Measure down from the neckline on the CENTRE BACK line and mark the finished depth of the back neckline. You can use point **D** to inform this- it usually it only needs lowering by **0.5cm - 2cm (1/4in - 3/4in)** to allow you to connect the neckline with point **D**.

We will call this point **E**.

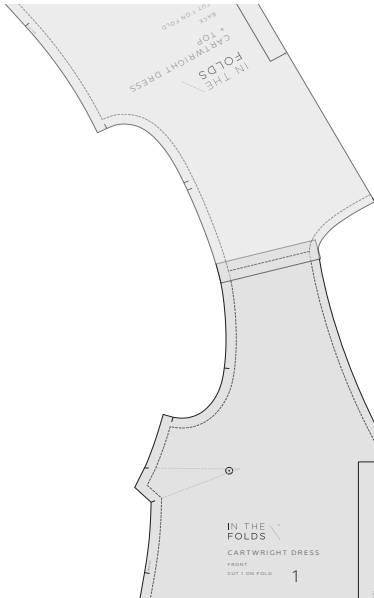


STEP 7

a Square off the CENTRE BACK for **1cm (3/8in)**.

b Draw a new neckline, joining point **D** and point **E**. A French curve will help you get a nice smooth curve.

c Add **1cm (3/8in)** seam allowance to the neckline. Cut away excess paper.

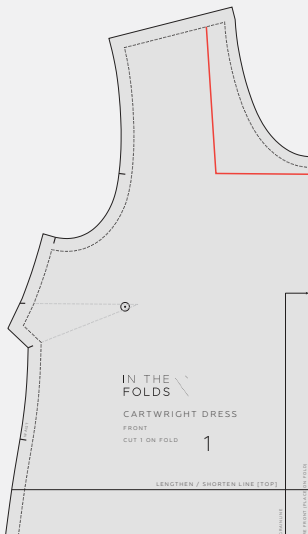


STEP 8

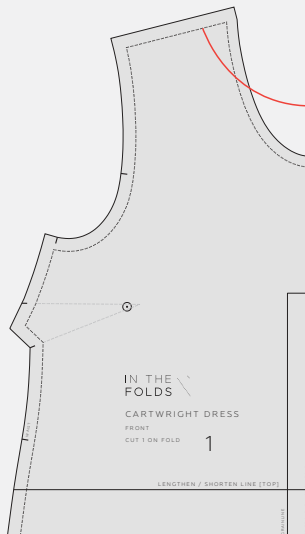
Place the FRONT [1] and BACK [2] pattern pieces together, STITCH LINE on STITCH LINE, at the shoulder seam and check that the neckline flows nicely. Adjust the neckline if necessary.

ALTERNATE NECKLINES

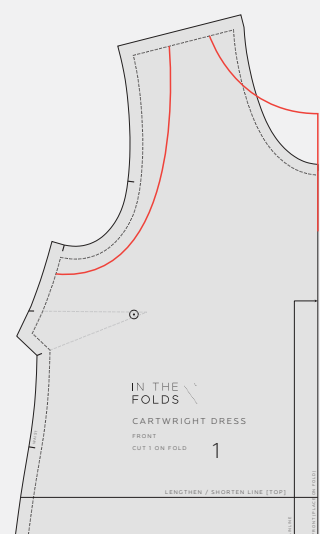
Use the same method to draft alternate necklines. In the case of the racer you will also need to alter the shape of the armhole.



SQUARE NECK

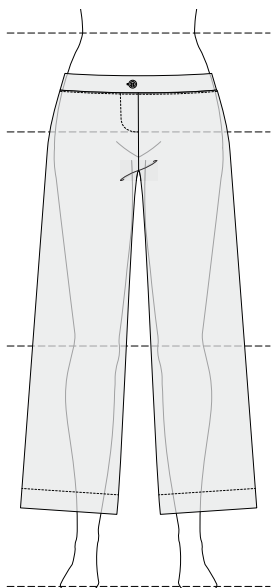


BOAT NECK



RACER

CHANGING WAIST LINE HEIGHT

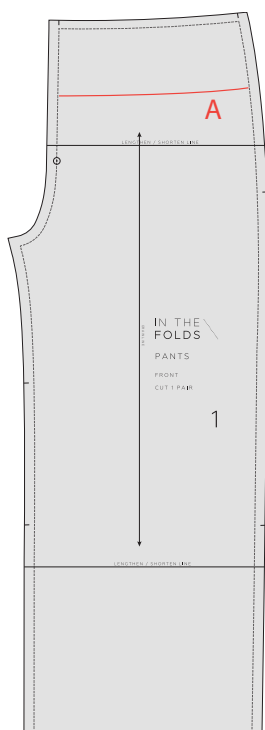


INTRO

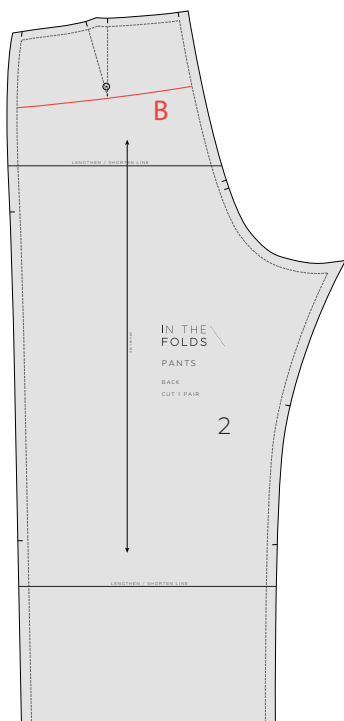
If you want to alter where pants or a skirt sit on the body, you can use the toile to work out how much height needs to be added or removed from the height of the waist. To lower the waist, follow the tutorial on this page. To raise the waist, look to p 106.

Before making this alteration, we recommend first fitting the pants as they are.

LOWER WAIST



STEP 1



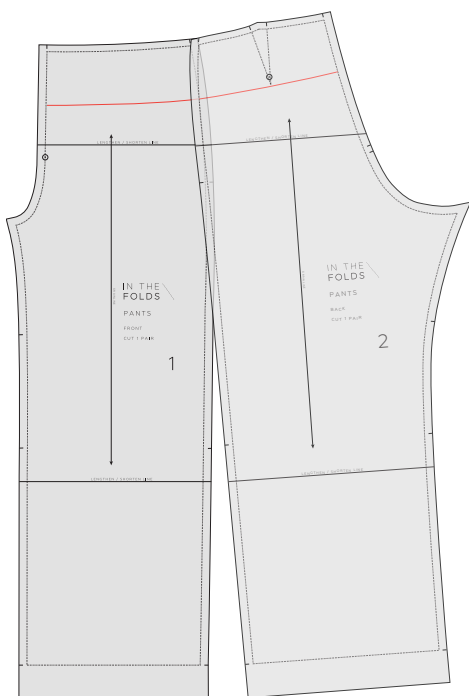
STEP 2

STEP 1

Using your toile as a reference, draw the desired waistline onto the pattern at the point where the pants will meet the waistband (not at the top of the waistband). Let's call this line **A**.

STEP 2

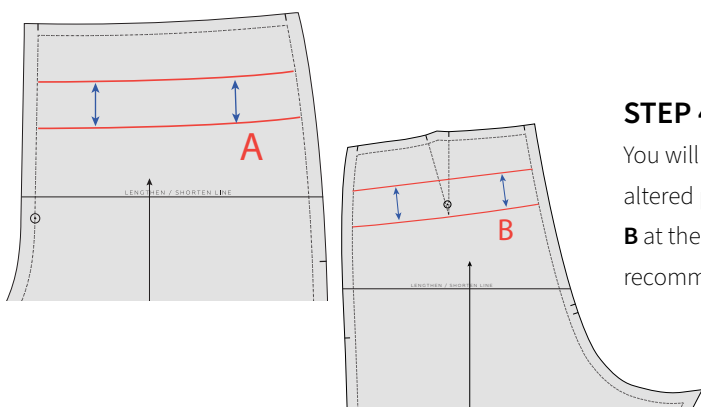
Repeat for the back pattern. Let's call this line **B**. For the example we chose to lower the waist to a point below the dart, eliminating the need for a dart.



STEP 3

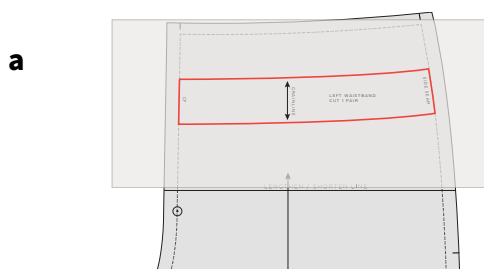
Line up the side seam STITCH LINES of the FRONT [1] and BACK [2] as if they have been sewn together (one on top of the other).

Check that the new waistline flows smoothly between the front and back. Adjust if necessary.



STEP 4

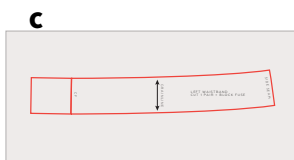
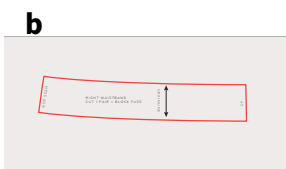
You will need to create a new waistband for the altered pattern. Draw lines parallel to lines **A** and **B** at the desired height of the new waistband. We recommend a 3-4cm (1¼-1½in) waistband.



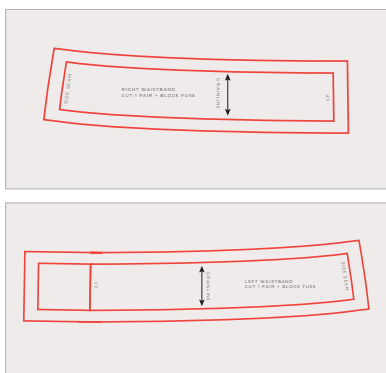
STEP 5

a Trace the front waistband shape. Add a grainline to the pattern parallel to the CENTRE FRONT.

b Trace another copy on the reverse side (with the waistband flipped). The reason we trace both sides is because the left and right waistband are not identical (we will add a fly front extension to the left waistband only).



c For the left waistband, add an extension for the FLY SHIELD. The extension needs to be the width of the FLY SHIELD (in this case 4.5cm (1¾in)) and the edge needs to be parallel to the CENTRE FRONT.



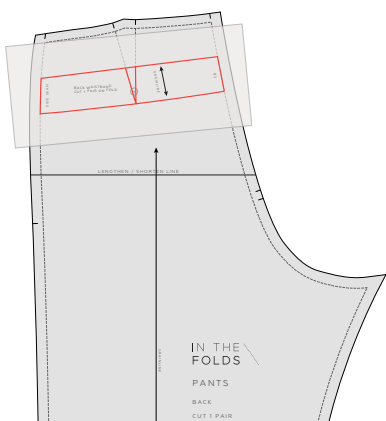
STEP 6

Add **1cm (3/8in)** seam allowance (p 16) to the top and bottom edges of the waistband pieces.

Add **1.2cm (1/2in)** seam allowance to the CENTRE FRONT and side seam.

You can change the amount of seam allowance to your preferred distance, but remember that the lower edge of the waistband should have the same amount as the top of the pants.

Make sure your patterns are labelled "**CUT 1 PAIR + BLOCK FUSE**" for both the right and left front waistband.



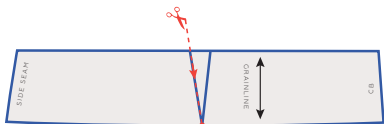
STEP 7

Trace the back waistband piece in the same way.

Trace the dart and we will show you how to remove it in the following steps.

Add a grainline to the pattern parallel to the CENTRE BACK.

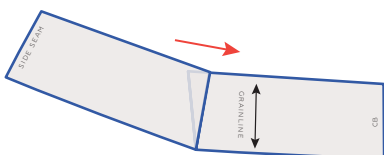
a



STEP 8

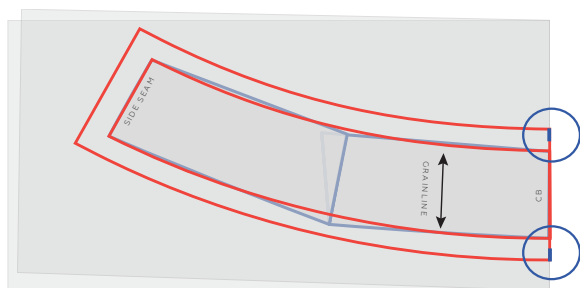
a Cut down one of the dart legs.

b



b Close the dart by moving the cut dart arm so that it meets the uncut dart arm.

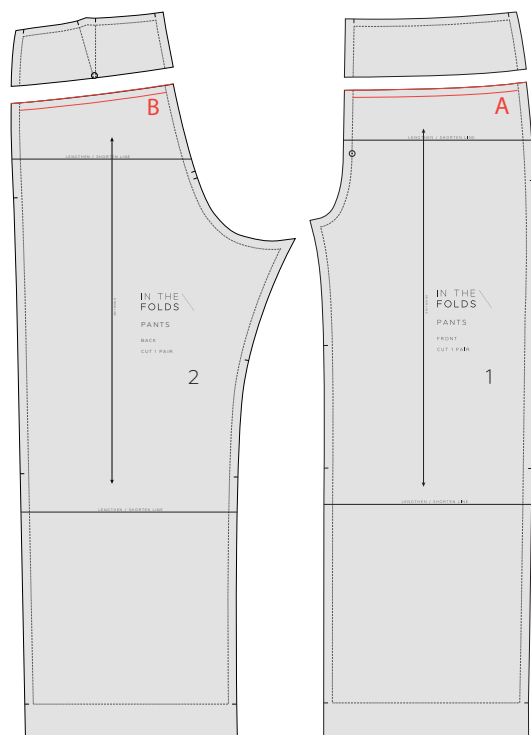
Tape / glue pattern in place.



STEP 9

Fold a piece of pattern paper and line up the **CENTRE BACK** of the new **BACK WAISTBAND** with the fold. Trace a copy of the piece, smoothing out the top and bottom edge where the dart was removed. Label the piece "**CUT 1 PAIR + BLOCK FUSE**".

Add seam allowance in the same way that you did on the front waistband pieces. Mark a notch at the **CENTRE BACK** on the top and bottom edges.

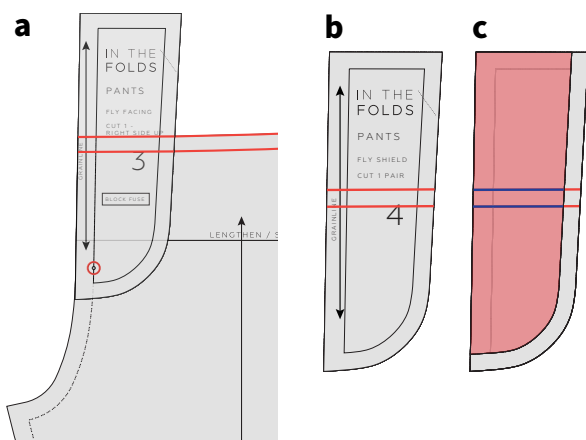


STEP 10

Take the pants pattern and add **1cm (3/8in)** seam allowance to lines **A** and **B**. You can choose whether to trace a copy to keep as a draft or cut off the excess.

STEP 11

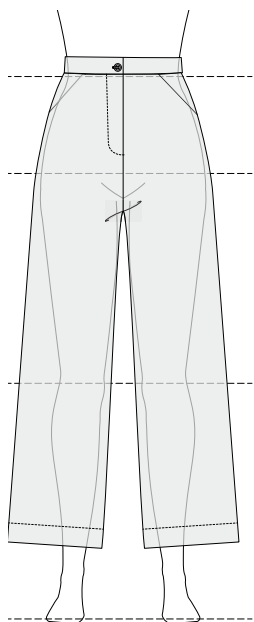
The fly pieces also need to be adjusted to suit the altered pattern.



a Place the **FLY FACING** [3] on top of the **FRONT** [1], lining up the drill holes. Trace over the new waistline to shorten the **FLY FACING** [3].

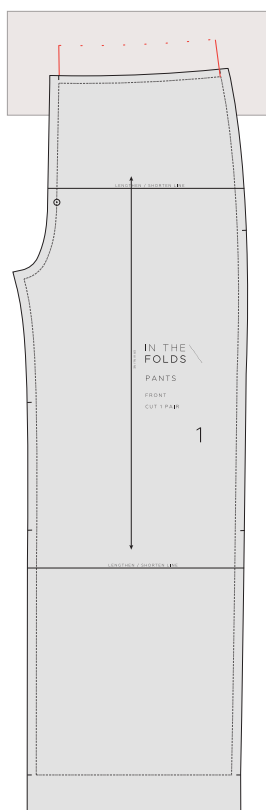
b Use this as a guide for altering the **FLY SHIELD** [4], placing one on top of the other.

c Reflect changes on the **FLY STITCHING TEMPLATE**.

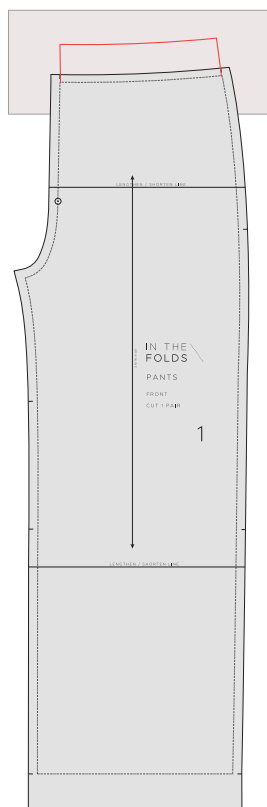


INTRO

There is only so far you can raise the waist on a pair of pants and skirt. This is due to the shape of the body. For example, if your waist is smaller than your upper body, then if you raise the waist on pants by too much you will hit a point where your body is curving out. Keep this in mind when considering how high to raise the waist on pants or a skirt. We suggest raising no more than 5cm (2in) above your natural waist and then making a toile to test fit and comfort.



STEP 1



STEP 2

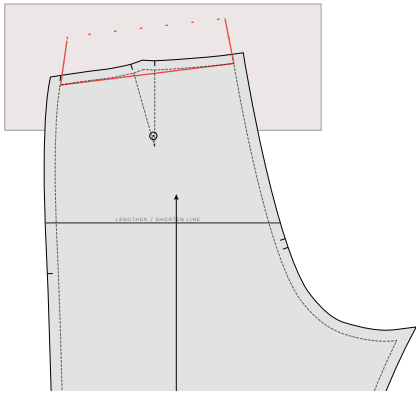
STEP 1

Tape or glue some pattern paper behind the waist section of the FRONT [1], enough to add the desired height to the waist.

Extend the front crotch seam and side seam by the required amount on the STITCH LINES. Follow the angle of the lines. Mark the amount to add a number of points, measuring up from the waist STITCH LINE.

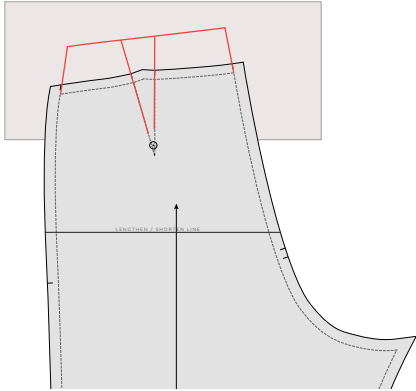
STEP 2

Join the two lines marked in STEP 1 with a smooth curve, using the markings in between to guide you.



STEP 3

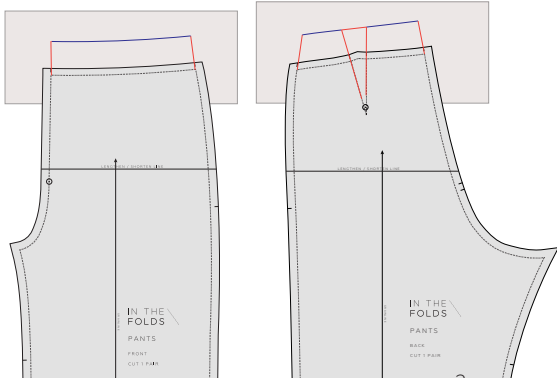
Repeat STEPS 1 and 2 on the BACK. If the garment has a dart, instead of following the dart shaping, draw a straight line through the waist and use that as your reference.



STEP 4

If the garment has a dart, extend the dart arms onto the paper, following the angle. As you can see, this increases the total dart width. This may or may not be correct for your body shape and desired fit. This can be adjusted once you check the new waist measurement (STEP 5).

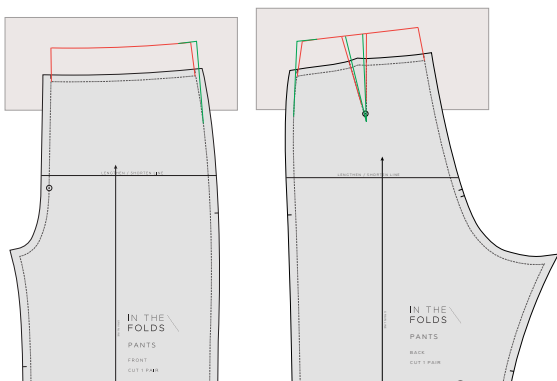
a



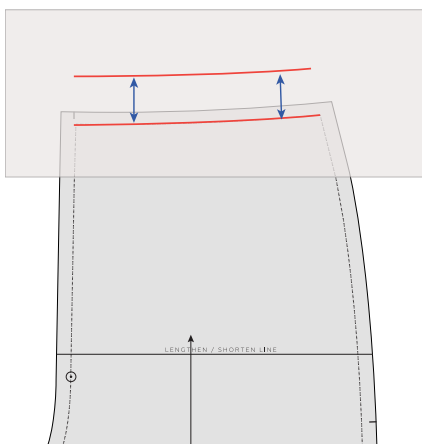
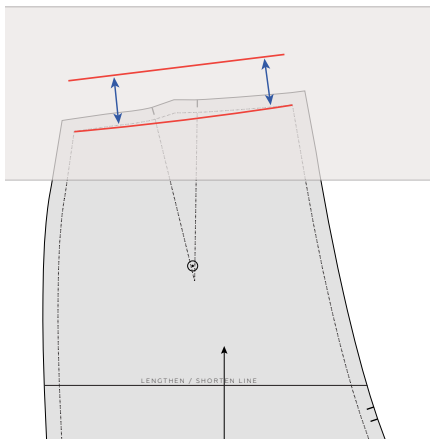
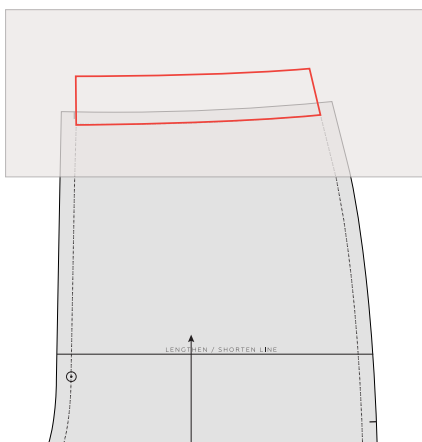
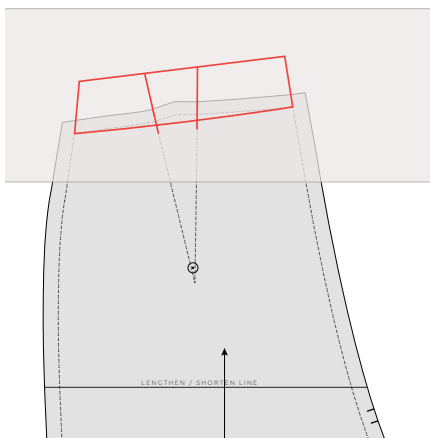
STEP 5

a Use a tape measure to measure the new waistline (marked in blue on the illustration). If there is a dart, exclude this from your calculation. Multiply the number by two to find the total waist measurement. Compare this to your actual waist measurement. You will want at least 2cm ($\frac{3}{4}$ in) ease.

b



b Adjust dart width in relation to the outcome of STEP 5 part **a**. If the waist on the pants is too small, make the dart smaller. If the waist on the pants is too big, make the dart larger. You can also adjust the angle of the side seams to make the waist larger or smaller (marked in green on the illustration).

a**b****a****b****STEP 6**

You will need to create a new waistband for the altered pattern.

a Take a piece of pattern paper and trace the new FRONT waist line onto the paper. Draw a second line, parallel to the first, at the desired height of the new waistband. We recommend a 3-4cm (1¼-1½in) waistband.

b Repeat for the BACK. Again, smooth out the waist line if there is a dart as we did in STEP 3 as the dart shaping is not required for the waistband.

STEP 7

a Extend the FRONT crotch seam and side seam STITCH LINES onto the waistband.

b Extend the BACK crotch seam and side seam STITCH LINES onto the waistband. If the garment has a dart, extend the dart legs onto the waistband, following the angle of the dart.

c Complete the waistband pattern pieces by looking at p 103 (STEPS 5-9).

Extend fly pieces by the amount added to the waist height.

ADD VOLUME

Adding volume to a garment will change the silhouette and fit. You may want to make a garment more comfortable by adding volume or you may want to drastically change the silhouette or design.

ADDING VOLUME (SLASH + SPREAD)



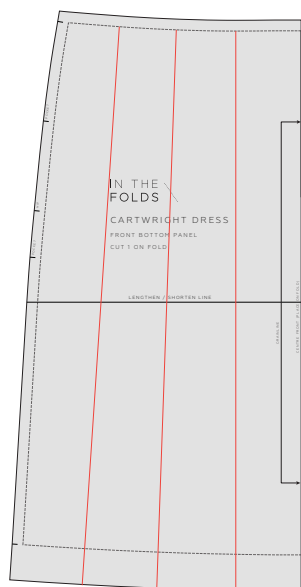
INTRO

The simplest way to add volume through a pattern piece is by using the slash and spread technique.

If you'd like to add fullness to a panel, you can use this technique to add flare to the hem of the pattern whilst keeping the seam line or top of the pattern the same.

Alternatively, you can add volume through a whole piece (such as the whole FRONT), you just have to consider the amount of design ease you would like.

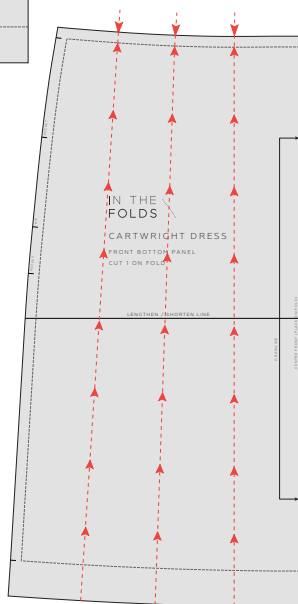
Use a tape measure around your body to decide how much volume you'd like to add at the point where the hem will fall.



STEP 1

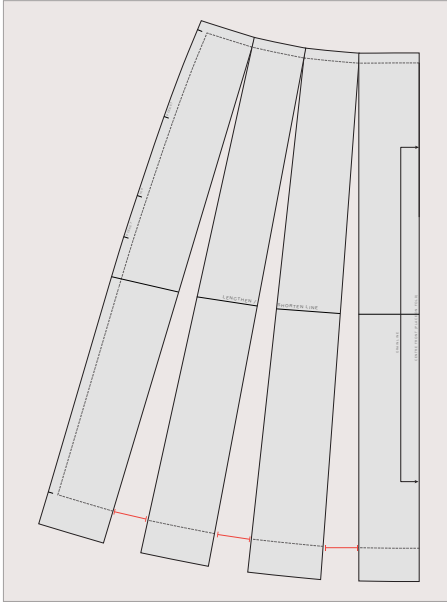
Draw some straight lines from the top STITCH LINE to the hem, parallel to CENTRE FRONT / BACK. These are called **slash lines**.

If your panel has a steep A-line side seam, you may want to draw some of the slash lines following the angle of the side seam



STEP 2

Cut along the slash lines from the hem, stopping **1-2mm (1/6in)** from the top STITCH LINE. Cut down into the seam allowance and stop **1-2mm (1/6in)** from the STITCH LINE to create small hinges of paper.



STEP 3

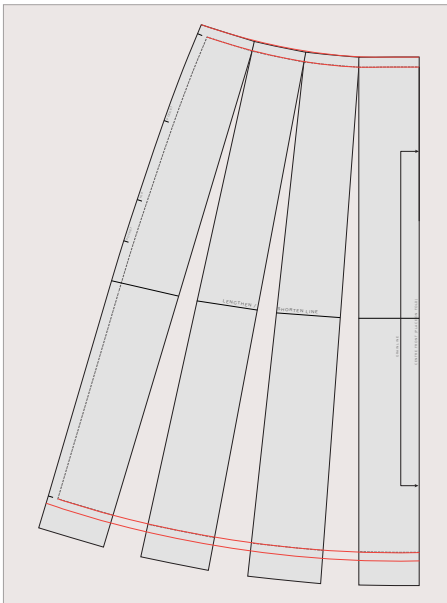
Slide a large piece of pattern paper under your pattern.

Using the hinges, open up the pattern at the hem. Divide the total amount you want to add among sections.

Tape / glue pattern in place.

Tip

Add the same amount of fullness to both front and back so that the garment remains balanced.



STEP 4

Re-draw the hemline and top STITCH LINES and CUT LINES with smooth curves over the alteration.

When the hem becomes more curved, it can no longer be folded (unless you do a narrow rolled hem). Instead, add **1cm (3/8in)** seam allowance and create a hem facing.

Cut away any excess paper.

ADDING VOLUME THROUGH GATHERS

INTRO

Gathers can be added to create a design detail as well as volume. The technique is similar to the slash and spread technique illustrated in the previous tutorial, the only difference is that we cut through the whole piece so that volume is added throughout. One seam will be gathered to fit the seam it joins to (this might be a waist seam, an armhole or even a neckline).

STEP 1

In the example, we are showing you how to add gathers to the lower section of a garment. A panel line has been created and the pattern piece has been cut through so that we can work on the lower panel.

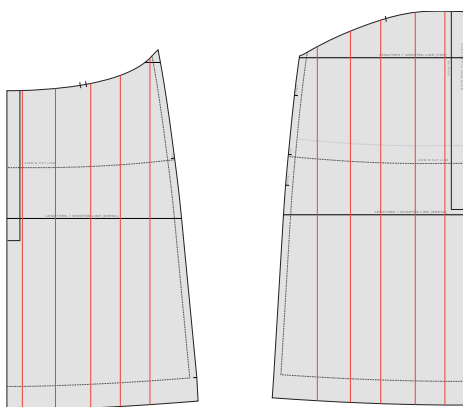
a Draw slash lines onto the lower panel pieces parallel to CENTRE FRONT and CENTRE BACK. You can add as many or as you like. The more you add, the easier it will be to smooth the new seam lines.

b If you don't have a LENGTHEN / SHORTEN line marked on the pattern, draw a line through the pieces about midway up and perpendicular to CENTRE FRONT / BACK. This will help line up the pieces without skewing the shape of the pattern. Cut through the slash lines.

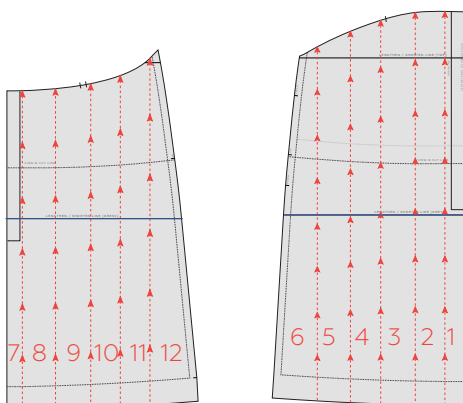
Tip

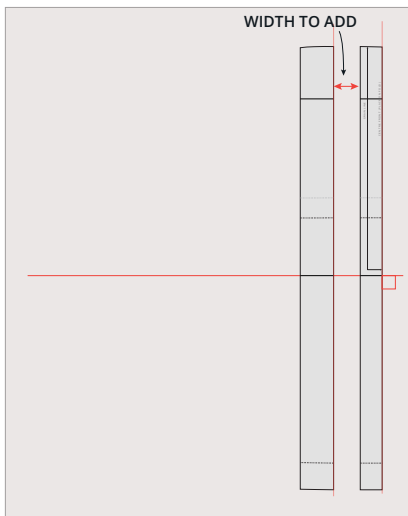
It can be helpful to number each section of the pattern so that when you cut through the lines you don't mix up the order of the pieces.

a



b

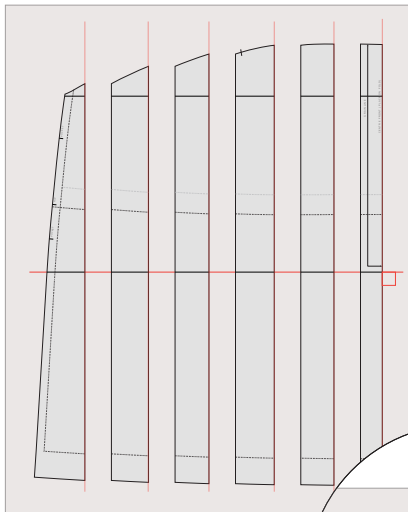




STEP 2

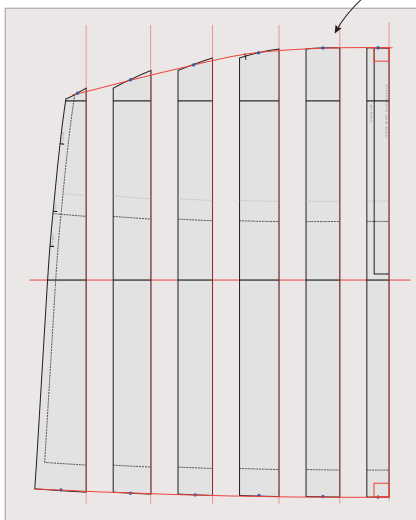
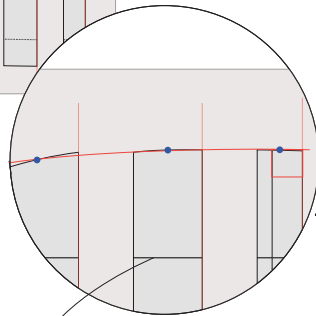
a Take a piece of paper and draw a horizontal line across it. The paper (and the line) needs to be wide enough to accommodate your pattern and the added volume. At the right-hand side of the line, draw a long line perpendicular to the horizontal line. Glue the first piece of the lower front section down, lining up the horizontal line on the pattern piece with the horizontal line on the paper.

Think about how much volume you would like to add. Take this measurement and divide it by the number of cut lines. This is how much space we will add between each piece of the cut pattern.



Measure along the horizontal line from the left edge of the first piece and make a mark at the distance determined. Draw a perpendicular line through this mark and then glue the second piece in place with its right edge along the vertical line (be sure to match the horizontal lines too).

b Repeat for each of the cut pieces.



STEP 3

Carefully draw in new panel and hem lines. They need to be smooth curves that transition across the pieces gradually. We recommend finding the middle of each section to help when marking the lines. Be sure to check that the new lines meet the CENTRE FRONT at right angles.

Add seam allowance to the top edge of the piece (p 16). Place a notch at CENTRE FRONT (top of the pattern piece only) and add labelling and cutting instructions. Repeat steps to create the back pattern piece.

FINISHING TOUCHES

Once you have adjusted your pattern to reflect your desired design, consider the finishing touches such as how you will finish openings and what fabric you will make it from.

DRAFT A FACING

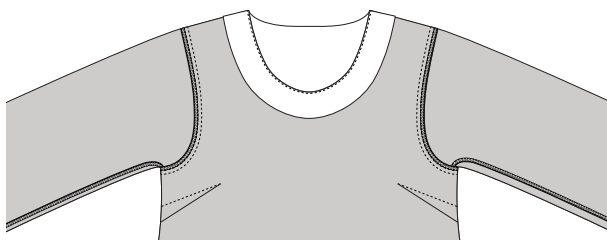


IMAGE 1

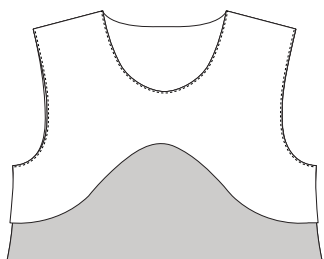


IMAGE 2

INTRO

You may prefer to finish the neckline with a facing instead of bias binding (**Image 1**). If you choose to make a sleeveless version, you may choose to make an all-in-one facing that will finish both the armholes and the neckline (**Image 2**). This tutorial will show you how to draft both options.

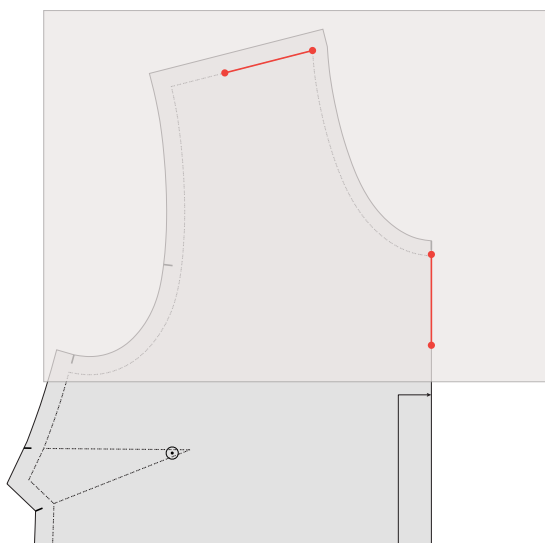
NECK FACING

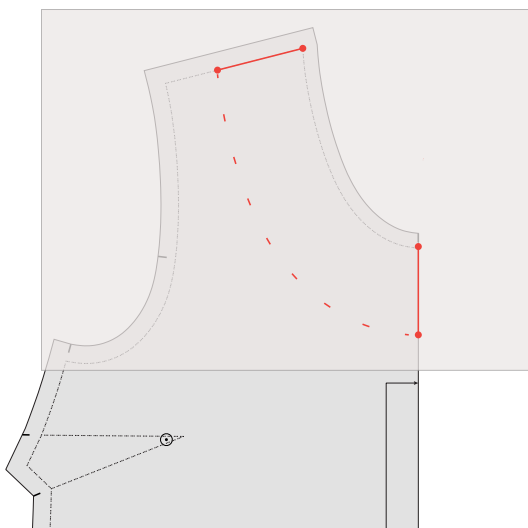
STEP 1

Place a piece of pattern paper on the FRONT [1]. It needs to be big enough to draft the neck facing. Hold in place with pattern weights or pins.

Consider how wide you would like the facing. You can work this out by holding a measuring tape up to your toile or body or by referring to another garment in your wardrobe. For the example we have made our facing a finished width of **6cm (2 $\frac{3}{8}$ in)**.

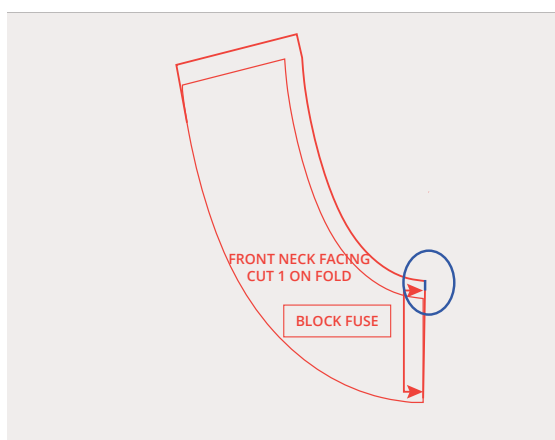
Measuring along the shoulder STITCH LINE from the neckline edge, mark the finished length of the facing with a straight line. Do the same on the CENTRE FRONT.





STEP 2

Measuring from the neckline STITCH LINE, mark the facing width in regular intervals between the two lines marked in STEP 1.



STEP 3

Join the broken line with a smooth curve. Add seam allowance to the shoulder seam and neckline (p 16). Seam allowance does not need to be added to the outer edge of the facing unless you plan to use a seam finish that requires seam allowance - for example, turning under the facing edge. If overlocking or binding, seam allowance is not required.

Add grainline, cutting instructions (e.g. **FRONT NECK FACING - CUT 1 ON FOLD - BLOCK FUSE**) and a notch on the neckline at CENTRE FRONT. Cut out the pattern piece.

Repeat this process for the BACK [2] to create the back neck facing. Once the back neck facing has been drafted, check that the front and back facings meet smoothly at the shoulder seam and adjust if required.

Sewing note

When sewing a facing, you can attach it to the shoulder seam allowances by hand, stitch through the ditch of the seams, or even stitch around the edge to add a topstitching detail to the garment.

ALL-IN-ONE FACING

An all-in-one facing is used on sleeveless garments when you want to use one facing to finish the edges of the neckline and the armholes.

STEP 1

Trace a copy of the top section of the FRONT [1]. It's up to you how much you trace, you just need enough length for your facing. We traced down to the upper LENGTHEN / SHORTEN line so that we had plenty of space to work with.

The first thing you need to do is remove the dart from the front facing. This will minimise bulk in the facing.

Mark the BUST APEX POINT and a vertical slash line to the bottom of the piece.

STEP 2

Slide paper underneath and "close out" the dart (p 35). Straighten out the side seam STITCH LINE over the closed dart.

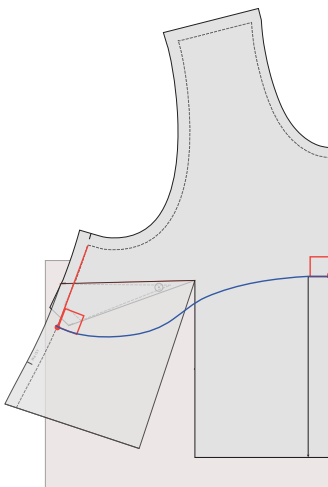
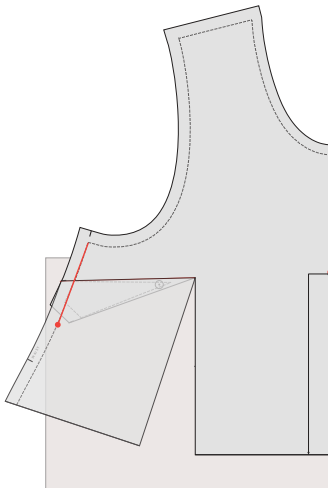
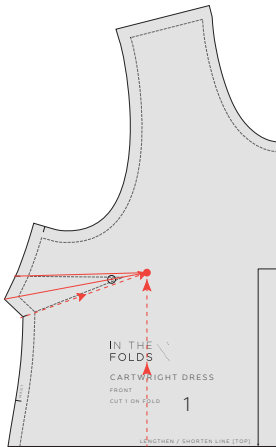
Consider the length you would like your facing to be. You may like to check some garments in your wardrobe to get an idea of your preference. This is also an opportunity to add a shelf bra to your garment if you like.

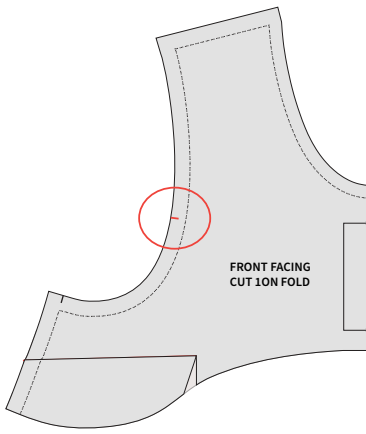
For the example, we will make facing **12cm (4¾in)** at CENTRE FRONT and **9cm (3½in)** at the side seam.

Take a ruler and measure down the CENTRE FRONT STITCH LINE to mark the facing length. On the side seam STITCH LINE, measure down from the armhole and mark the facing length.

STEP 3

Draw in your facing shape, joining the lines at the CENTRE FRONT and side seam with a nice smooth curve. The shape of the facing is up to you, but the smoother the better as this will help you get a nice finish. The line must meet the CENTRE FRONT and side seam at a right angle.

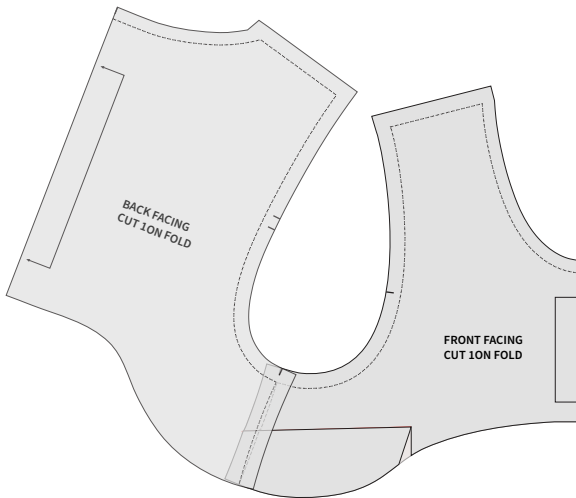




STEP 4

Cut off excess paper. Add a grainline and cutting instructions. You may choose to add instructions to block fuse the facing if this is your preference.

Add a single notch on the armhole and transfer to the FRONT pattern piece.



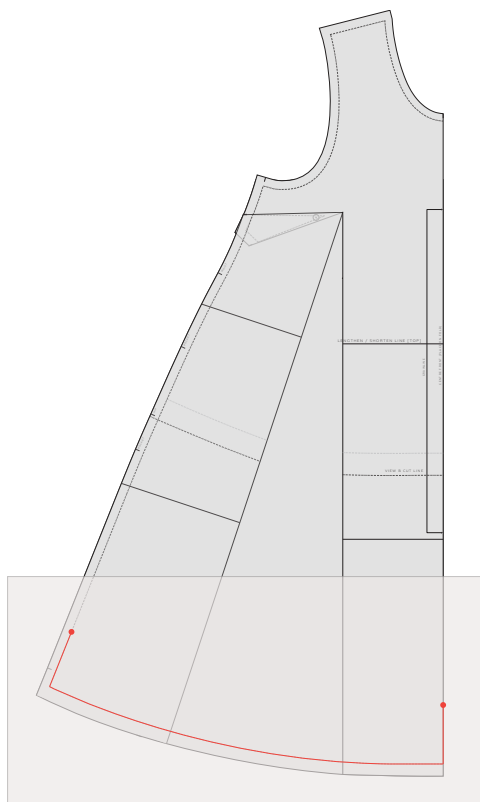
STEP 5

Repeat this process to create the BACK [2] facing, although there is no dart to remove. The CENTRE BACK facing length can be different than the CENTRE FRONT facing length, but the side seam length must be the same.

Check the flow through at the side seam to ensure a nice smooth line. Add a double notch to the back armhole and transfer to the BACK [2] pattern piece.

DRAFT A HEM FACING

A hem facing is an ideal way to finish a curved or shaped hemline. In a curved hem, the cut edge circumference is larger than the circumference where it needs to be stitched, which will cause puckering if you try to turn up the hem. Hem facings also add weight to the hem of garment, which can help the garment sit nicely.



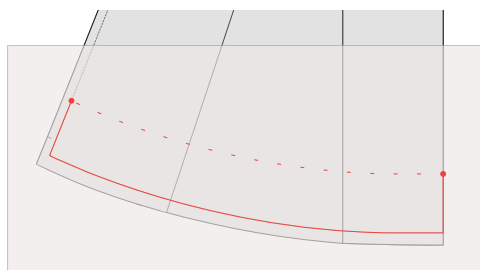
STEP 1

Place a piece of pattern paper on the FRONT [1]. It needs to be big enough to draft the hem facing. Hold in place with pattern weights or pins.

Consider how wide you would like the facing. You can work this out by holding a measuring tape up to your toile or body, or by referring to another garment in your wardrobe. For the example, we have made our facing a finished width of **8cm (3in)**.

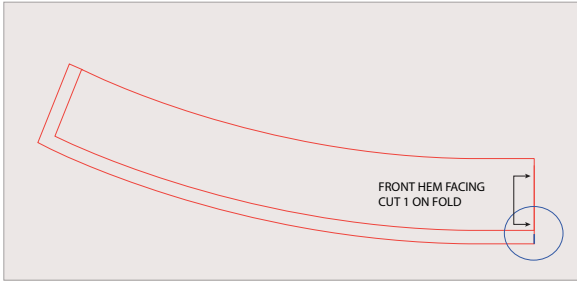
Trace the hem STITCH LINE. When tracing a curve it can be easier to first trace it as a broken line and then to join the broken line with a ruler or French curve.

Measuring up the side seam STITCH LINE from the hem, mark the finished length of the facing with a straight line. Do the same on the CENTRE FRONT.



STEP 2

Measuring from the hem STITCH LINE, mark the facing width in regular intervals between the two lines marked in STEP 1.



STEP 3

Join the broken line with a smooth curve. Add seam allowance to the side seam and hem edge (p 16). Seam allowance does not need to be added to the top edge of the facing, unless you plan to use a seam finish that requires seam allowance - for example turning under the facing edge. If overlocking or binding, seam allowance is not required.

Add grainline, cutting instructions (e.g. **FRONT HEM FACING - CUT 1 ON FOLD**) and a notch on the hem at CENTRE FRONT. Transfer the notch to the FRONT [1].

Repeat this process for the BACK [2] to create the back hem facing. Once the back facing has been drafted, check that the front and back facings meet smoothly at the side seam, and adjust if required.

WHAT IS A TOILE?

A toile (also known as a 'muslin') is a draft version of a garment. A toile is normally made from a cheaper fabric, so that you can test the fit of a particular garment before cutting into your 'real' fabric.

It is best to choose a fabric for your toile that is similar to what you plan to make the actual garment in. If you are using a lovely sandwashed silk, then you will need something with a similar handle and drape as the silk so you can get a good idea of what the final garment will look like.

TIPS FOR MAKING A TOILE

- There is no need for a zip or buttons (unless you'd like a practice run) if your design features these.
- You can leave off any extra design details such as pockets. It is a good idea to mark in where pockets will go though so that you can check the position (just mark with a fabric pen or pins).
- You do not need to finish seams.
- Remove the seam allowance from armholes and necklines if you plan not to finish them for the toile. If you would prefer to leave the seam allowance on, you can, but just keep this in mind when fitting the toile. Staystitch curves, such as neckline and armholes so they don't stretch.
- Sew the toile with a longer stitch length than usual so that when fitting the toile it is easy to release the seams if you need to. This also speeds up the toiling process and uses less thread.
- Do not sew the hem. It is good to have the hem allowance available if you would like to experiment with length options.
- It is still important to press the toile well as you sew. This will help you when assessing the fit of the toile.

HOW TO USE A TOILE FOR A FITTING

- Try it on, get in front of the mirror and take a look! Is it sitting how it should? How does it feel? Can you sit down comfortably?
- If you do need to make some changes, take a pen (or fabric marker / chalk) and draw the changes directly onto the toile. Alternatively, you can tape masking tape to the toile and write / draw on that.
- If it feels too big, pin out some of the excess fabric from the seams.
- If an area is too tight, cut into the fabric and use pins to fill the gap with a separate piece of fabric.
- If you have made a lot of changes, you may need to make another toile to check the fit again. If the changes are minor (shortening or lengthening, slightly moving a dart, slightly changing the neckline etc.), you will probably be fine skipping making a second toile.

TRANSFER CHANGES TO A PATTERN

- Take your toile and methodically transfer the changes to the pattern. It can be overwhelming if you have a lot of changes to make. Working on one area at a time will help with this.
- Use the seam lines / design details as a reference when transferring changes.
- A tracing wheel can come in handy when transferring seam changes.

PATTERN MAKING GLOSSARY

ARMSCYE

The armhole opening on a pattern or garment where the sleeve will join / attach.

CENTRE FRONT

The middle of the front of a pattern or garment. It is a good idea to mark the centre front on a pattern piece and can be abbreviated to 'CF.' It is also useful to mark the CF with a notch on the cutting line at the top and bottom of the pattern piece.

CENTRE BACK

The middle of the back of a pattern or garment. It is a good idea to mark the centre back on a pattern piece and can be abbreviated to 'CB.' It is also useful to mark the CB with a notch on the cutting line at the top and bottom of the pattern piece.

CUT LINE

The line on the pattern that indicates where the fabric will be cut. As In the Folds patterns include seam allowance, this is the outer edge of the pattern.

DART

A wedge of fabric that is sewn in certain areas of a garment to create shaping around contours of the body. Darts are usually found at the bust and waist in fitted styles. Darts can also be added as a design feature.

DRILL HOLE

Drill holes are small holes marked on a pattern. They are used to indicate a dart point or other design feature, such as the location of patch pockets, belt loops or pivot point - any feature that is located in an area where you are unable to notch a seam. They are marked on fabric with chalk or a tailor's tack. On In the Folds patterns, drill holes are marked **1.2cm (½in)** back from the tip of a dart.

EASE

Ease refers to the difference between the body measurements and the finished garment measurements. In fitted styles, a little ease is always included so that you can move around while wearing the garment. Design ease refers to the ease added to create the shape of the garment. Finished garment measurements include both wearing and design ease.

FACING

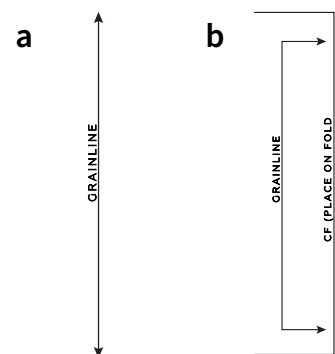
A layer of fabric attached to the inside of a garment to finish raw edges with a clean finish. This gives you an invisible finish from the outside of the garment. Usually found on curved edges such as necklines, armholes and hems. Facings can be used as a design feature on straight hems.

GRAINLINE

A line marked on a pattern that indicates the lengthways direction of a fabric, parallel to the selvages. The grainline on a pattern assists with placing the pattern correctly on the fabric when cutting. The grain of the fabric impacts how the garment will sit on and fit the body and it is important to make sure the pattern pieces is always on grain. Grainlines are marked in two different ways on In the Folds patterns, depending on the application:

a Arrows used at either end of the grainline to differentiate it from other lines on the pattern.

b For pattern pieces placed on fold, grainline is marked as a 3 sided box and placed up against the fold.



HEM

The bottom edge of a garment that is turned up and stitched, or finished with an alternate hem treatment.

INTERFACING

A (normally) fusible fabric that is used to stiffen or strengthen fabric in certain parts of a garment. It is often used in collars, cuffs and waistbands.

LINE OF BEST FIT

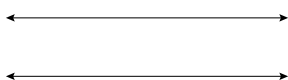
Refers to drawing a straight or curved line through multiple points to create a smooth or straight line. Technique is used regularly when trueing patterns.

NOTCH

A notch is a small cut in the fabric that helps guide you while you are sewing. It can be used to indicate seam allowance, dart arms, the location of design details or indicate key points on the pattern (such as the centre front or centre back). Notches are also used to indicate balance points. Balance points are points on a pattern that help you sew the right pieces together, as well as help you when you are sewing long or curved seams. Double notches normally refers to the back of a pattern piece and a single notch refers to the front.

PARALLEL

Lines that run alongside each other with the same distance between them the whole way.



PATTERN CUTTING

INSTRUCTIONS

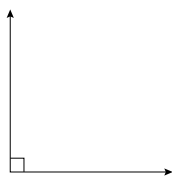
Pattern cutting instructions are your way of keeping track of, and identifying, pattern pieces. On each pattern piece, you should include:

- the name of the pattern
- name of pattern piece
- pattern size
- cutting instructions
- number of pieces
- date

The clearer your markings are, the easier your pattern will be to use and re-use.

PERPENDICULAR LINES

Lines that meet at a 90 degree (or right) angle.

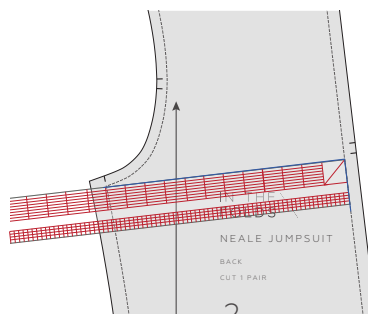


SEAM ALLOWANCE

The space between the stitch line and the raw edge of the fabric. The seam allowance often varies throughout patterns, depending on the seam. For example, larger seam allowances are required for centre back and side seams. Smaller seam allowances are required for curved seams such as the neckline.

SQUARE OFF

Use a set square (or short side of a grading ruler) to ensure that intersecting lines meet at a 90 degree angle. This allows for smooth flow through between pattern pieces and prevents humps or dips being created when pieces are joined together.



STITCH LINE

The line on the pattern that indicates where the fabric will be stitched. Having the stitch line marked on the pattern assists you when making alterations to a pattern.

TRUING

Truing is the process of checking that pattern pieces fit together and that lines are smooth and blend nicely over seams. This can also be referred to as 'checking flow through.' More info on the process of truing patterns can be found on p 22.

REFLECTION

OVERVIEW

Date made _____

Garment made _____

SKILLS LEARNED

WHAT DID YOU ENJOY ABOUT THE PROCESS?

WHAT PARTS OF THIS PROJECT ARE YOU MOST PROUD OF?

IS THERE ANYTHING YOU WOULD DO DIFFERENTLY NEXT TIME?

WHAT SKILLS WOULD YOU LIKE TO WORK ON IN THE FUTURE?

NOTES FOR NEXT TIME

WE'D LOVE TO SEE
WHAT YOU'VE MADE.

*Find us on Instagram @inthefolds
and tag your make with #MakeItYourOwnSkillsKit and
#CuratedByITF*

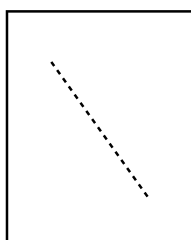
LOVE YOUR GARMENT?

*There are plenty more patterns + resources available at
www.inthefolds.com*

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IN THE
FOLDS

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