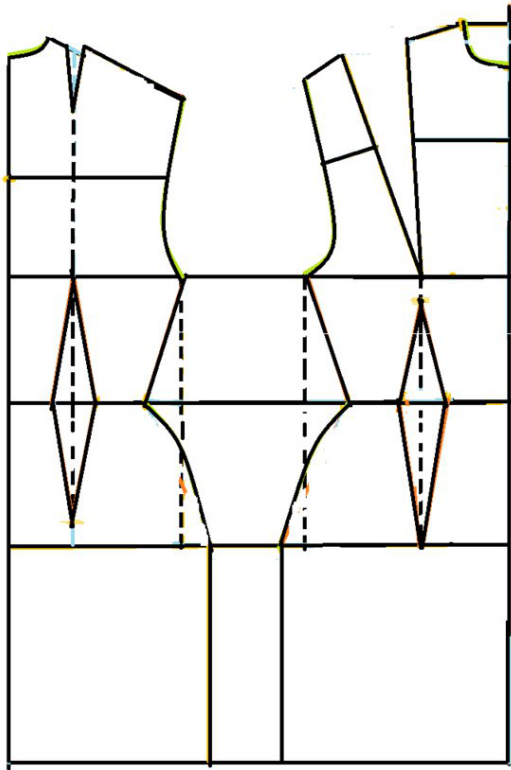


constructing the basic sloper pattern

By: sartemis

<http://www.burdastyle.com/techniques/constructing-the-basic-slop>



If you want to get into pattern drafting, having your own sloper of pattern block is a must have. Instead of calculating all of your measurements over and over again, do it once thoroughly and adjust that pattern to every shape you can imagine. It's really not that difficult. All you will need are a set of measurements, a calculator, some time and pattern paper. When I started out making patterns I came across lots of wonderful tutorials on how to construct your own basic patterns, none of them were completely to my liking however. I wanted to construct the basic pattern in one part (as I work with dresses most of the time) and I wanted to understand every step of the process and know where all of the measurements were coming from and if I could or could not change them. What follows is a hopefully comprehensive tutorial on how to draft your own pattern.

Step 1 — collect the material

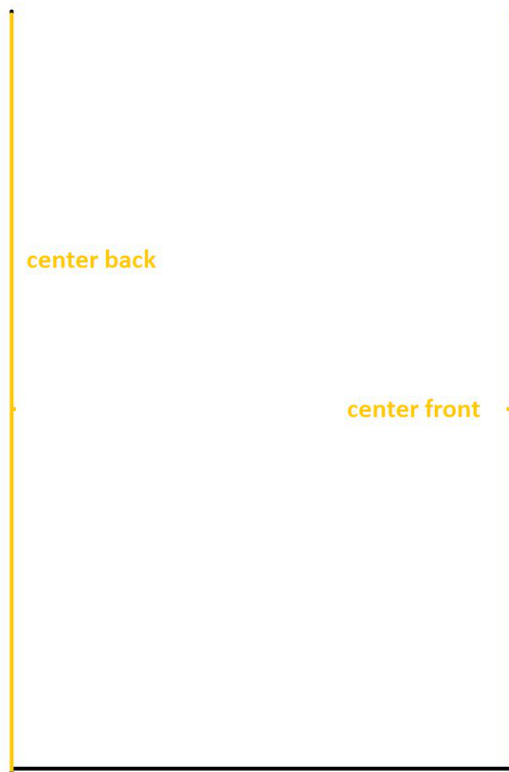


First off, my apologies for any mistakes (spelling or otherwise) I'm not a native speaker, so bear with me... Get a set of correct measurements and collect all other required materials. Explanations to what measurements will be needed and how to take them are on my blog. <http://copycatcraziness.blogspot.be/2014/03/the-basic-dress-sloper-measurements-and.html> You will have to set out with a piece of pattern paper half of your bust measurement + 15 cm wide and the length of your body -50 cm.

Step 2 — some basic info

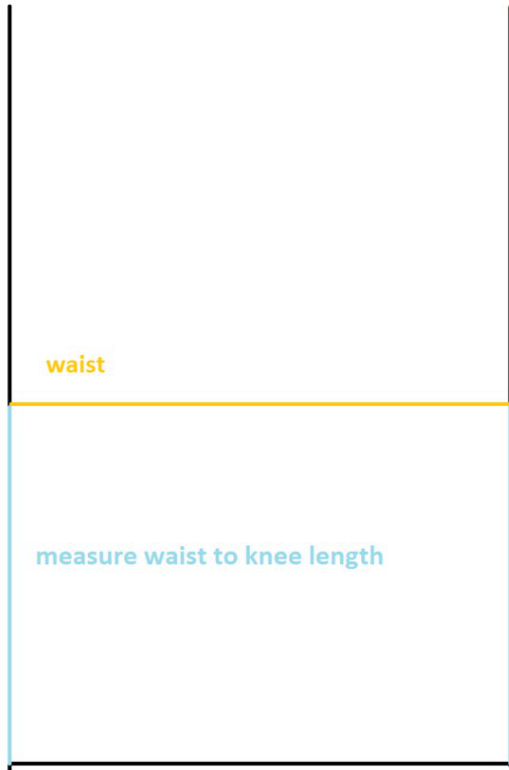
Adjusting measurements for ease: Something crucial in making garments is ease. This will allow you to actually move in the clothing you design. There is a minimum wearing ease that is 6 cm in the bust area, 2 cm in the waist and 4 in the hips. Some sources will list other measurements, but these values work for me. I like to keep my wearing ease as small as possible and let the design ease take care of itself in the design process. Mark the extra values on your list of measurements and make the calculation. You will need to use these measurements multiple times and it's easy to forget to add the extra cm at one point. This will ruin your garment for you. That's why it's important to have the new measurement clearly on your list of measurements while working. (This will also save you the headache of having to start a garment over when you forget your wearing ease) Half and quarter measurements Since This is a pattern that's meant to go on the fold of the fabric it only pictures half of your body. That's logical since your body would normally be symmetrical and this saves us a lot of pattern paper and it makes drafting and cutting the pattern a lot easier. Because of this we will be using a lot of half and quarter measurements. Do not freak out, the garment will end up to be big enough! We quarter measurements since half of our drawing will be half of the front body and the other half will be half of our back. (Made more sense in my head) You will see what I'm getting at here while we are drafting...

Step 3 — The basic layout



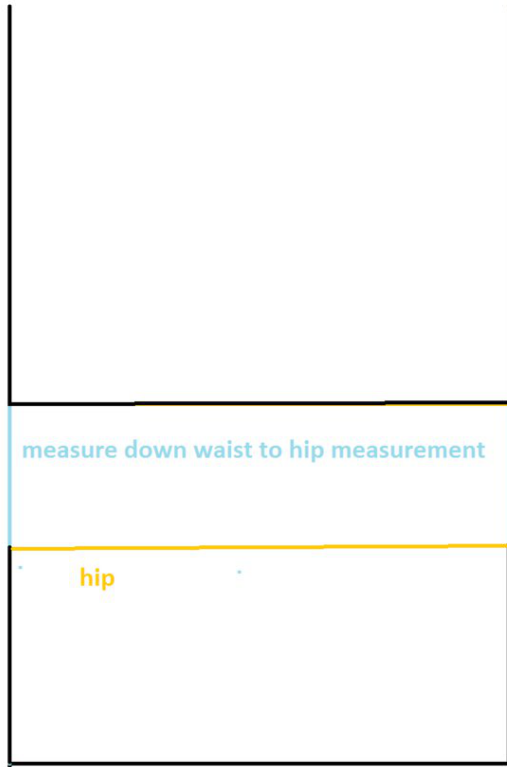
Draw a line parallel with the bottom of your paper. This will be your knee line. I like to make a real dress sloper out of these patterns because I tend to make mostly dresses. You could do a shorter version ending at the hips. Drafting the whole thing enables me to mark some standard lengths for my skirts, which saves me a lot of time while drafting, since I tend to want to measure how long I want something to be, then start trying to measure myself, ending up with a measurement that's completely wrong, realising this, just guessing what length I will need, reasoning that I can always cut of the excess fabric and measuring some extra, and then waste fabric or end up with a super fat hem for being lazy and not cutting the excess off. Ok, sorry for drifting off topic, next you draw two lines perpendicular to this first line and logically parallel to the side edges of the paper. Do this approximately five centimetres from the edge of the paper. The black line in the picture should measure half of your hip measurement + 5 cm. These two lines will be the centre back and centre front of your block. Mark these if you feel like doing so. I like to add the cut this pattern on fold symbol with the arrows on these lines.

Step 4 — The waist line



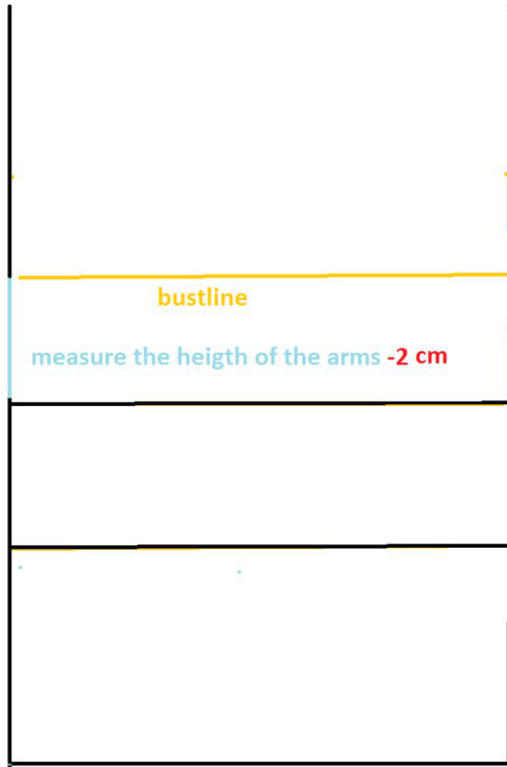
Next measure your waist to hip length on both sides of the pattern. Connect these points by squaring off of the sides or with a long ruler. By measuring both sides you ensure that the line you draw is straight and parallel to the knee line. (This is important for a good fit and an accurate pattern). The line you just drew is your waistline. (indicated in orange above) I like to mark that in a subtle way, just to make things easier for yourself. You can also inscribe your waist measurement and the amount of ease you used here.

Step 5 — The hip line



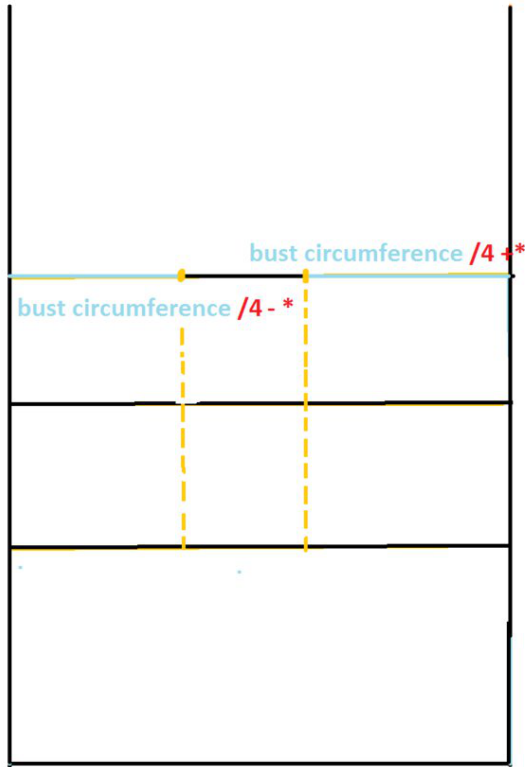
You can already see we are going along a perpendicular to the sides parallel with the knees and waist theme here. Its just easy to add these construction lines all in one go. Measure the waist to hip measurement down from the waistline on both sides. Connect these points or square of from this point. This is the hip line.

Step 6 — The bust line



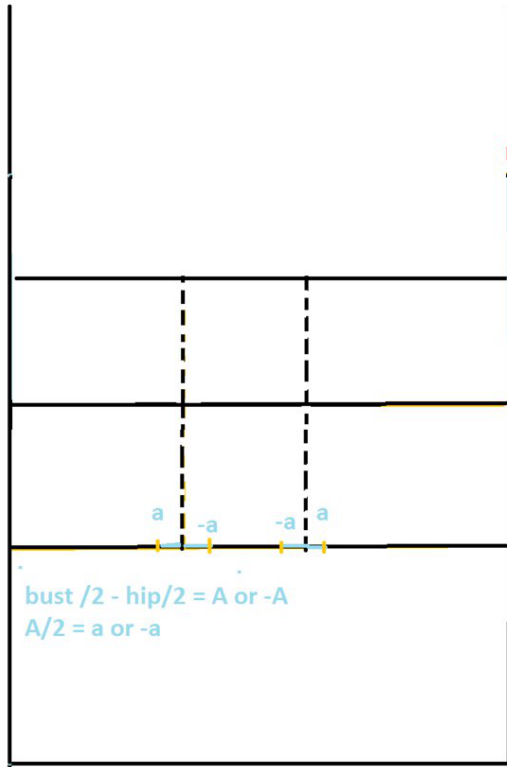
Next we are going to construct the bust line. This is in fact the line where our armholes will begin and lies above the real bust line. To do this, measure the height of the arm and subtract 2 cm from that measurement. These two centimetres are necessary to be able to move your arms in your pattern. Square this line off like you did with the previous measurements.

Step 7 — Taking your breasts into account



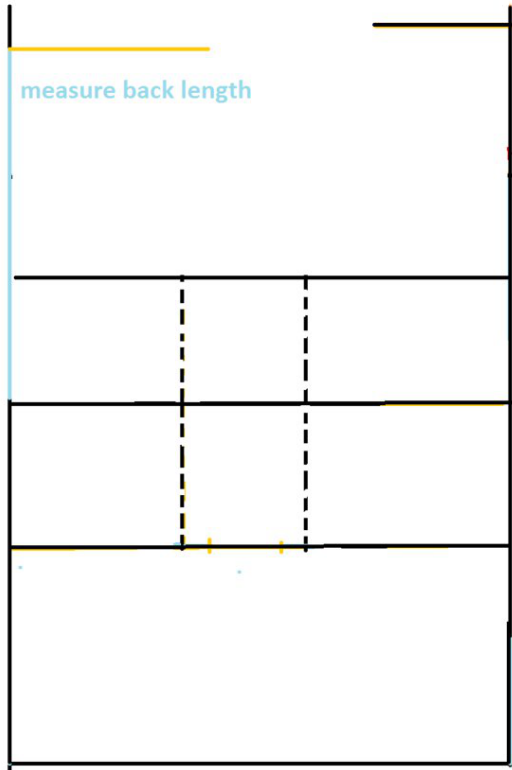
We can now start constructing the side seams. Since our body will always be bigger at the front than at the back at bust level (yes even if you have small breasts) we have to do something to take that difference into account. By making the front bodice bigger than the back bodice we actually move the side seams back and into place. The amount of difference between front and back bodice differs for different breast sizes, as a rule you should add 1.25 cm for every cup size you have. So an A would add 1.25 cm, a B would add 2.5 cm, a C would add 3.75 cm,... To construct these lines measure one fourth of the bust circumference minus the difference for your cup size from the centre back line and mark that point. Square off or measure the same distance on the waist and hip line and connect the points. Since these are construction lines, you can leave them as dotted lines or draw them in pencil. Measure one fourth of the bust circumference plus the amount required for your cup size for the front bodice from the centre front seam. Mark that point and square off as before.

Step 8 — The hips



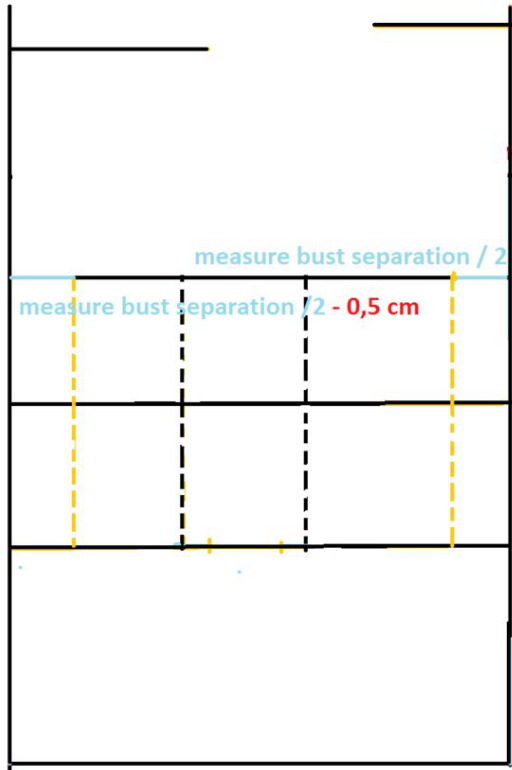
We are off course no rectangles (or at least we hope we are not). In the next step we will take the form of our hips into account. Some women's bust is larger than their hips, for others it's the other way around. To figure out what applies to you, you can just see which of your body measurements is bigger. That doesn't take into account how much bigger though. That is why we will subtract half of our hip measurement from half of our bust measurement. That way we know exactly how much difference we have to take into account. If the result you get is negative, your hips are larger than your bust (you can double check if you like), you will have to add half of the result to the dotted line you drew earlier. (Adding needs to be done away from your centre front and back line so right of the left dotted line and left of the right dotted line (-a in the picture). If your bust is bigger than your hips you will have a positive result. measure half of that result off of the dotted lines (a in the picture).

Step 9 — The back height



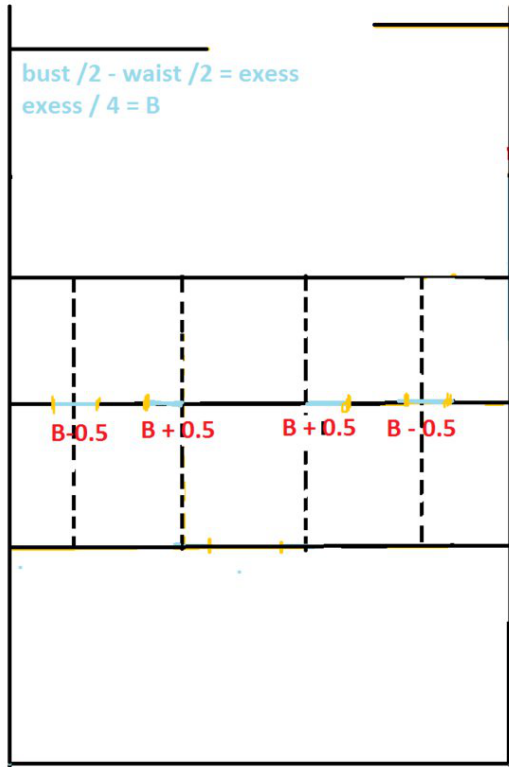
Measure the back length on the left side starting from your waist. This determines where your shoulder and neck seams will go. Square off with a temporary line.

Step 10 — The front height



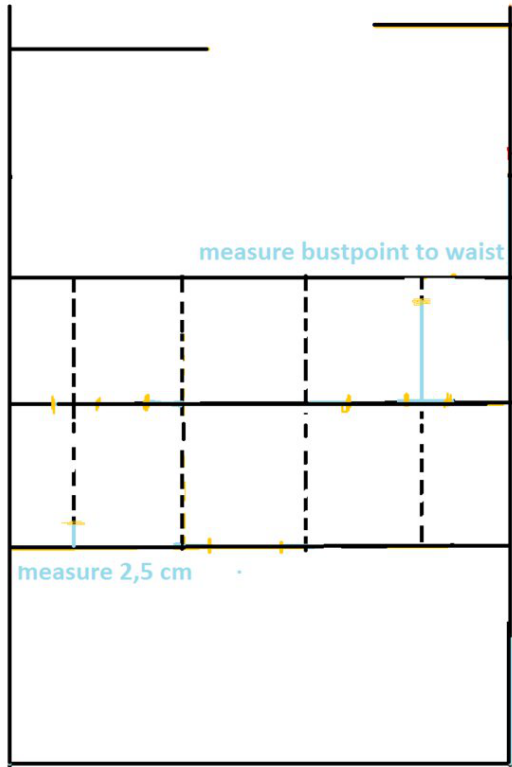
You might have noticed that the potato sac we've currently drawn is far too big in the waist. This is of course remedied by waist darts and adjusting the side seams. To determine where the waist darts should measure half of the bust separation from the centre front. Square off with a temporary line. Use the same measurement at the back, but this time subtract an additional 0.5 cm. Square off as seen on the picture.

Step 12 — The width of the waist darts



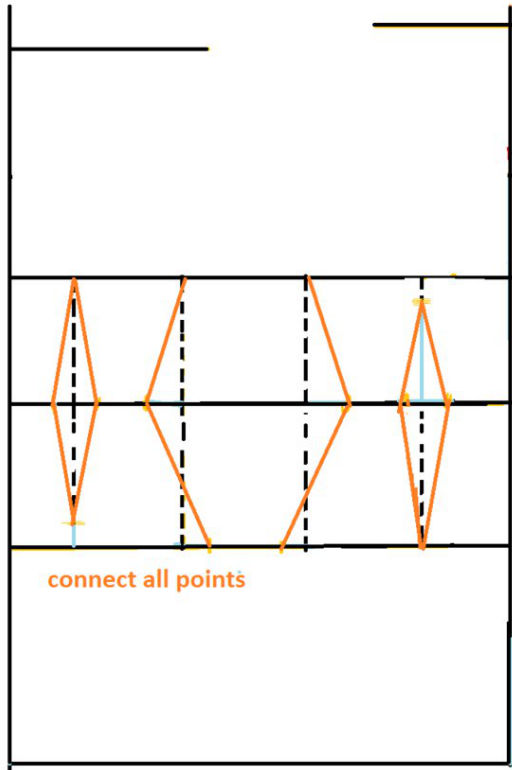
To calculate how much excess fabric we have to remove subtract half the waist measurement from half of the bust measurement. As we have four places to remove this excess fabric the resulting measurement by four. Since it will give a nicer finish to take more fabric away at the side seams than in the darts add 0.5 cm to the amount you will measure at the side seams and subtract 0.5 from the amount you will take away at the darts. You can now mark the orange points in the picture. Make sure to measure half of the dart width to the left and half of the dart width to the right of the dotted line. (as more or less seen in the picture)

Step 13 — Some last points to mark for the waist darts



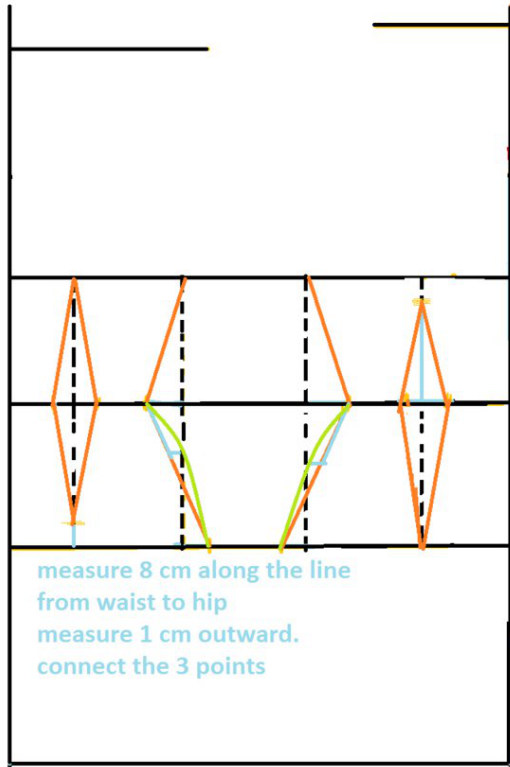
Some last points to mark. Our bottom is bigger at the back than the front. That's why we will let the dart end somewhere above our hip measurement. This allows for some extra room. The amount used here is usually 2.5 cm. This is however arbitrary and can be changed to your liking. The same goes for your breast measurement. Remember how we said in the beginning that our bust line was actually our armhole line? You will have to determine the placement of your real bust point. Do this by measuring your bust point to waist measurement up from the waist over the dotted line. Mark that point as Bust point. (This is a handy reference point in later pattern adjustments.)

Step 14 — The waist darts are finally finished



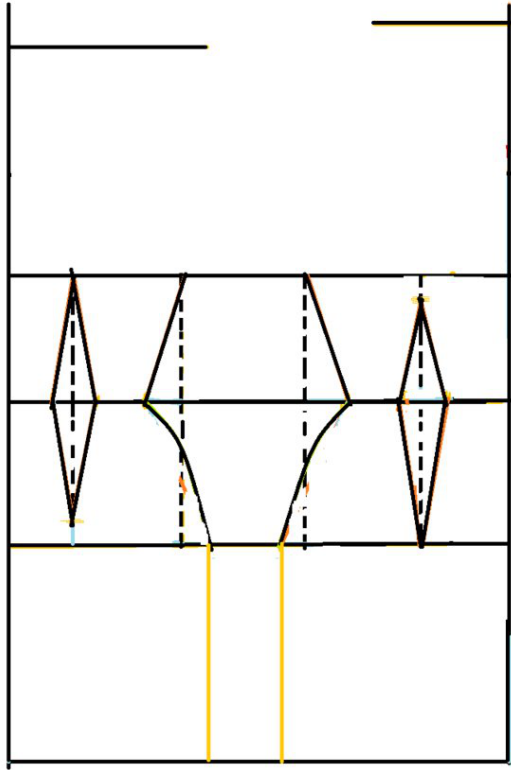
In the next step simply connect all points as seen in the picture.

Step 15 — curving the hips



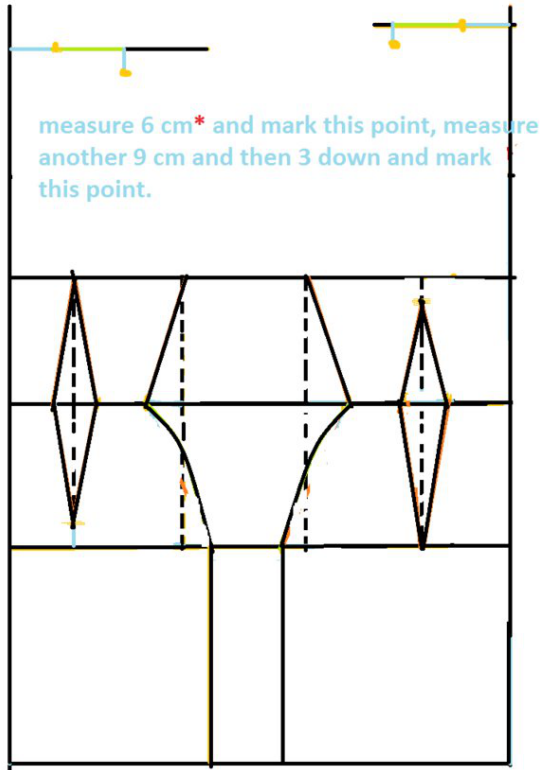
Because our hips are curved in real life, we're going to curve them too. measure eight cm down along the side seams from the waist. Measure out 1 cm parallel to the waist (perpendicular to the dotted line you drew in). Connect these three points with a French curve.

Step 16 — skirt side seams



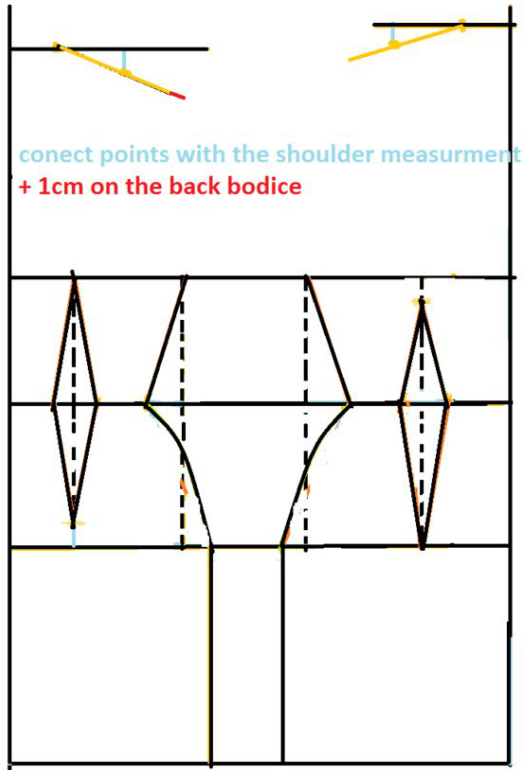
Draw a straight line down from the hip to make the side seam of the skirt.

Step 17 — shoulder placement



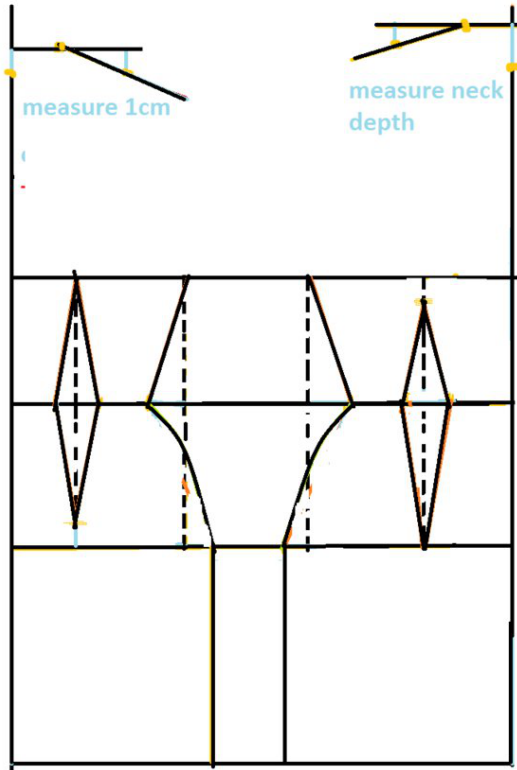
Measure 6 cm from the centre back along the line you drew earlier, this is a fixed measurement for the neck. mark this point. Measure another 9 cm to the right and 3 cm down. Mark this point as well. Do the same for the front bodice. The only difference is that the fixed measurement there is 6.5 cm.

Step 18 — Shoulders



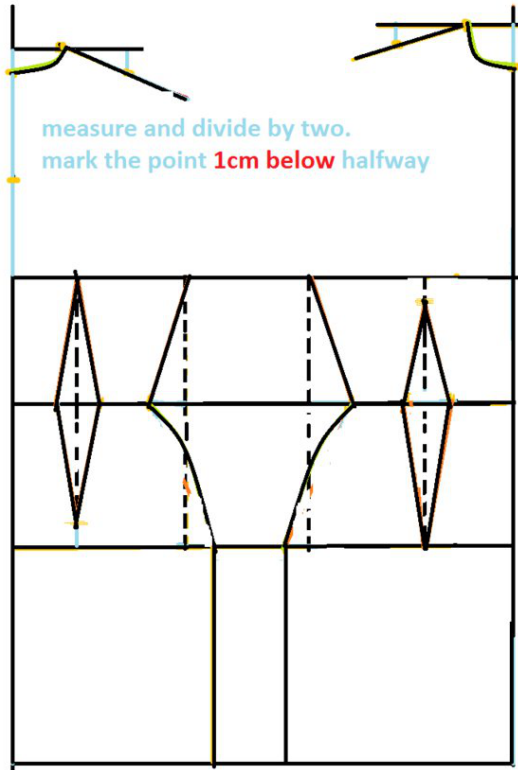
Now you can draw the shoulders. Connect the two points you made earlier with a straight line, exactly the length of the shoulder measurement. Add 1 cm to the line in the back bodice. These are temporary lines and will have to be adjusted later on.

Step 19 — Neckline



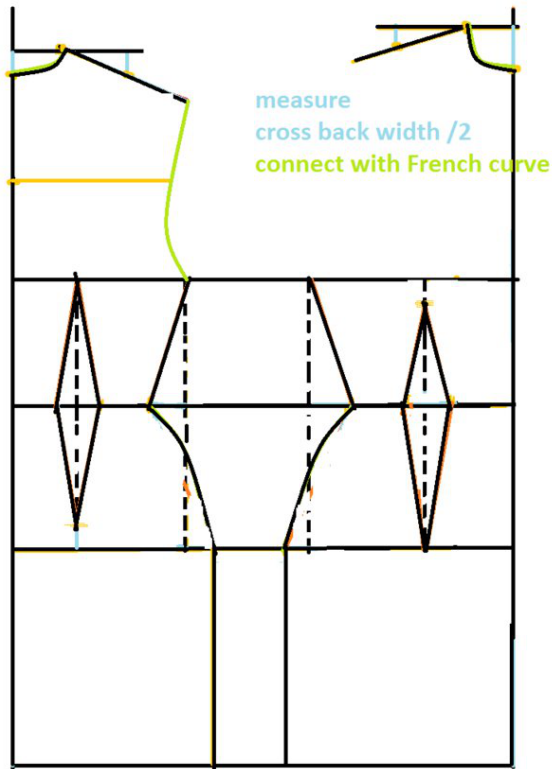
Next we will determine the neck depth. at the back this is another arbitrary measurement, usually 1 cm. In front use the neck depth measurement you took. Connect all lines with a French curve.

Step 20 — armehole part 1



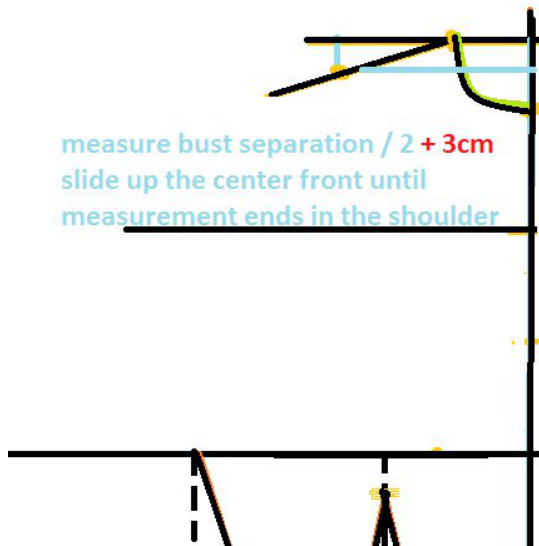
Measure the line resulting between the neckline and bust line. Divide by two, but mark the point 1 cm below half of the line.

Step 21 — armhole part 2



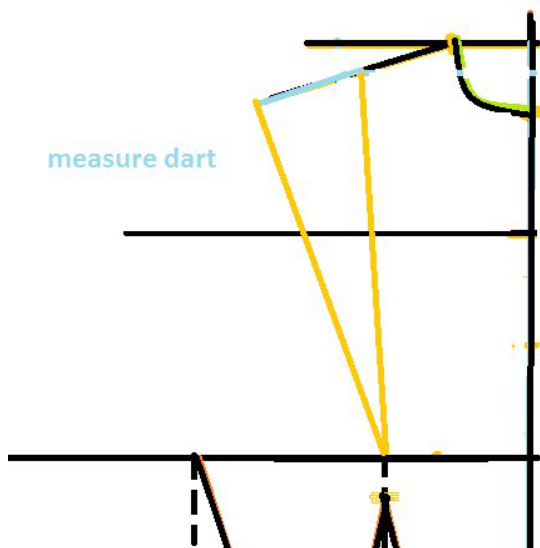
Now for the other arm. This will be a bit trickier. Divide the line between bust and neckline by three. Measure one third down from the neckline and draw a temporary line perpendicular to the centre front.

Step 23 — shoulder dart part 1



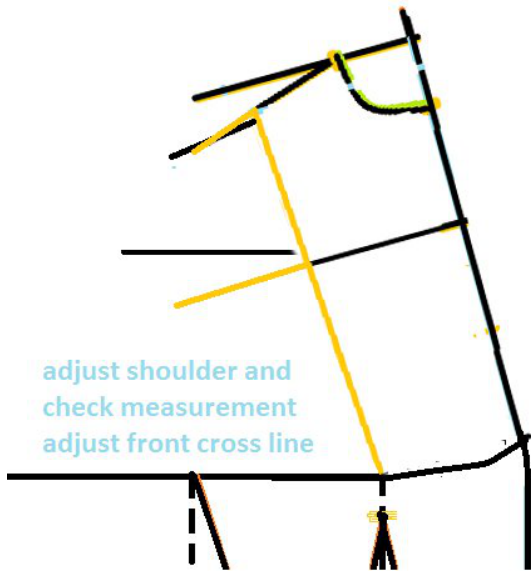
We have to decide where to put our front shoulder dart next. Take half of the bust separation plus 3 cm. Put the zero for your ruler on the centre front seam and slide up, perpendicular to the centre front. When the measurement you took crosses the shoulder line (as seen in the picture) stop and mark this point.

Step 24 — shoulder dart part 2



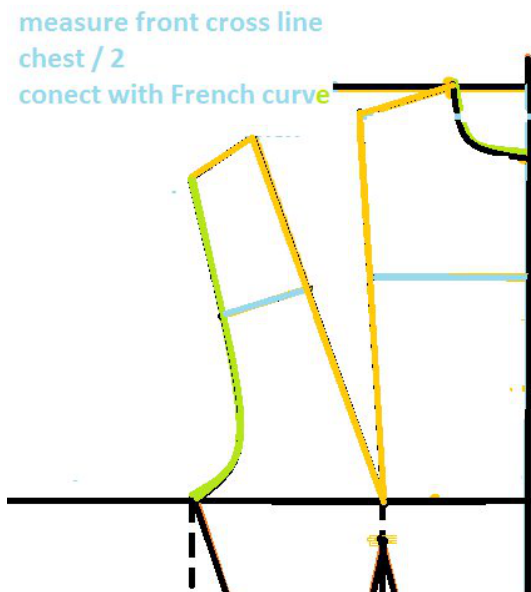
Connect this point to the bust line at the dart you drew earlier. Next measure the dart width along the shoulder line you drew at fist. The dart width is a fixed measurement and depends on your bust size. Someone with a bust size larger than 80 cm and smaller than 90 cm would have to measure 6.5 cm. Someone with a bust size between 90 and 100 would have a dart width of 7,5 cm, for busts over 100 the bust width would be 9.5, for busts of 110cm the width would be 12 and for bust sizes starting from 125cm the bust width will be 15cm. Connect this point to the bust line as well.

Step 25 — front bodice shoulder dart adjustment



The next point is the trickiest part of the whole process. You will have to close the dart to get the pattern just right. If you have sewn before this will likely be no real challenge. Fold the right dart line in such a way that it lies directly on top of the left dart line. This becomes considerably easier if you let the majority of the pattern hang from a table. Position the dart point (bust point) on the corner of the table and let all of the lines under the bust line hang over the side. When you have folded the pattern successfully (and checked that the sides of the dart do line up correctly) take a ruler and extend the two lines (shoulder and chest line) as shown on the picture. It's not necessary to measure correctly at this point, but you eliminate an extra step by doing so. Check that the shoulder seam is exactly as long as the shoulder measurement. Check that the chest line (between shoulder and bust) is exactly as long as half of the chest measurement.

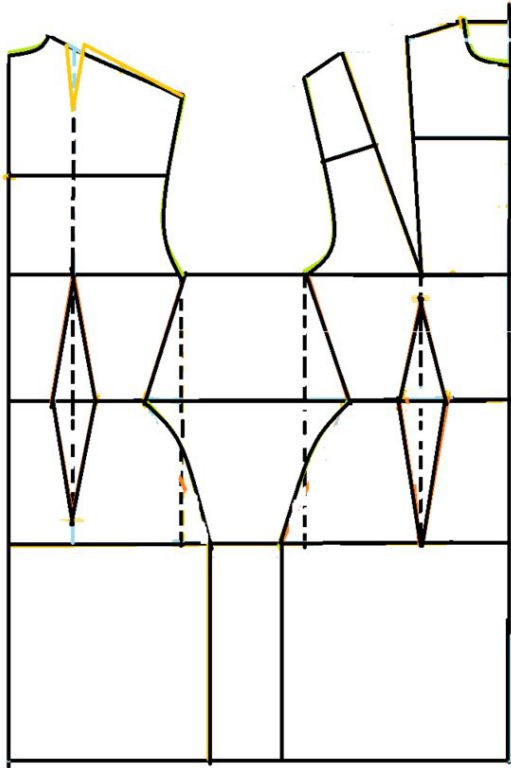
Step 26 — armhole part 4



Put the pattern paper back in place and unfold the dart. You should now have a dart and a pattern piece that is slightly slanted (more or less as shown above). You can double check the measurement for the shoulder and

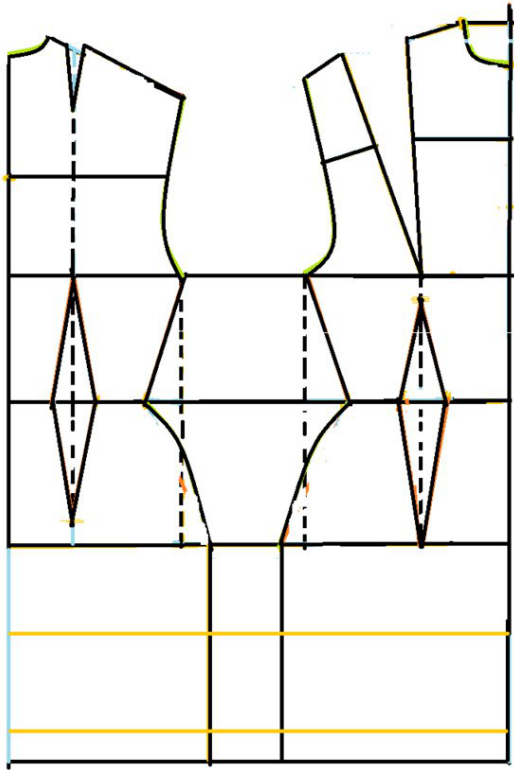
chest by measuring the part right of the dart (the one you constructed first) and adding that to the part you have constructed after that. Connect the three points you have now constructed with a French curve.

Step 27 — another shoulder dart



It's time for the last construction: the back shoulder dart. Remember how we added one extra cm? We will have to take that away to make the shoulders match up correctly. Why bother doing this? Ever noticed that your shoulders aren't really flat either? They are curves too, and they need the dart to ensure the proper round shape of the arm. Constructing it is easy. First you'll have to extend the dotted line you made before (the one for the back dart) once you have done so, measure 9 cm down from the shoulder along this line. Mark this point. Next measure 0.5 cm left and right of the point where the dotted line crosses the shoulder line. Mark these as well. connect both to the point you marked first. Notice how the dart is asymmetrical? We will have to fix this or our pattern won't line up. Measure the length of the left dart leg. (the longest one) make sure the shorter one has the same length (measure and add the necessary line) mark that point. connect this last point to the shoulder tip you created earlier (end of the shoulder on the right).

Step 28 — Finished!!



Congratulations! You have successfully drafted a pattern block! It should look somewhat like this! (Note that I didn't use any real measurements while making this diagram in paint, and that all sets of measurements differ somewhat so your pattern will look somewhat different, and that is of course the point of a good fit...) You can add some height measurements for skirt lengths if you like. I like to add mini, knee, and somewhere in between lengths.

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