

From: [cat42](#) Nov-9 4:37 pm

To: [PendleStitches](#) (9 of 11)

in reply to [10226.1](#)

I too am apple shape, with belly and balloon rear. My hips (on the side) are straight below the high hip bone, and my legs are slim. From the side, my torso looks like a beach ball! I've been experimenting with fitting and have an idea to offer, which worked for me.

Try draping a slim pant fitting shell using gingham fabric (¼" check). I want to give credit to Donna Brandt, a long-time participant in the Threads discussion, for starting me on my draping journey.

NOTE: Refer to [sketch](#) of starting gingham pattern, with final draped seamlines superimposed.

Ready the gingham for draping:

1. Start with a pattern and clean pattern paper. Trace seamline for both the front and back crotch curves, but straight-grain above the curve onto the paper. Note: if you know you need extra length on front and/or back crotch extension, add that to the curve. If you are like me, thick from front to back, you'll need extension on at least one of these. If you're not sure, add 1" extension on front curve and 2" on the back curve, for 'just in case'.

Also, if you want to experiment with angling CF or CB outward above the curve as someone suggested, draw that now.

Now put away that commercial pattern; you'll be working with your own pattern from this point forward.

2. Draw vertical (straight-grain) inseams below the crotch curves. Then draw vertical straight-grain sideseams positioned for the widest part of the front and of the back (plus 1/2" ease on each).

Determining sideseam position:

When viewed from the side, the sideseam should bisect leg at thigh, calf & ankle, and be perfectly vertical from floor to waist.

You can tie a piece of string to the elastic around your waist, attach a weight (like a clothespin) at the bottom, then slide the string along the elastic until it is positioned correctly for a sideseam.

Measure your vertical inseam from floor to crotch, and use that to determine where to draw a horizontal line for the bottom of the leg (at floor).

With that length of elastic or string around your waist, measure your length from waist to floor at several positions around your body, following your curves as your finished pant will do: center front, front dart area, side seam, back dart area and center back, on both sides. Note which is the longest length, then measure up from the floor line at the sideseam for that longest length and draw a horizontal line on both front and back, for approximate waist seam.

Each piece will be a long rectangle, with the crotch curve cut out of one corner. When you are finished, there will be a lot of excess fabric down the legs which is eventually trimmed away.

3. Now add 2" seam allowance for front and back inseams and sideseams, and 2" seam allowance at waist. Add 5/8" seam allowance through crotch curves and 1" seam allowance above crotch curves for center front and back. Mark grain lines on front and back.
4. Cut out these pieces from the gingham, paying attention to grain. Baste on temporary front and back crotch to waist, and sideseams from waist to crotch depth. Baste inseams only about an inch each side of the crotch seam (or use a safety pin), to hold the crotch together. The legs will not be connected below the crotch (yet).

Fitting the Seams

Key points:

- Gingham verticals and horizontals must remain straight at all points.
 - Inseam and sideseam must hang vertical.
 - When viewed from the side: inseam **MUST** bisect the inner leg at crotch, knee, & ankle; sideseam **MUST** bisect the outer leg at waist, hip, knee & ankle.
 - The vertical grain line **MUST** be perfectly vertical. And, as much as possible, bisect the thigh, knee and ankle (viewed from front and back).
5. Try on, using a length of elastic to hold the pant in place at the waist, tugging fabric to ensure that horizontal gingham lines are horizontal and vertical lines are vertical. Adjust crotch seams as necessary. You want a good fit in the crotch area, with no wrinkles, smiles or drag lines before you proceed with the rest of the pant. It becomes difficult to fix the crotch once the rest of the pant is fit. And a good fit in the crotch will help the pant stay on-grain; so much depends upon those curves and angles of the crotch!

Play with the CF and/or CB positioning (tilt forward) for big belly or balloon butt.

Once the crotch fits, with the length of elastic around your waist, double-check horizontal and vertical gingham lines. Mark bottom of the elastic for waist seam.

6. Now for the hard part: inseam and sideseam. It helps to have a friend help.

Mark the center of the knee on front and back with a pin (this will be the crease line position). Following the key points listed above, determine first the position of the inseam, and then the sideseam, so that the knee center remains centered on both front and back.

Determining leg width:

- Desired ease is the determining factor. You want a slim, tapered fit but with enough ease for movement.
- Width at the hem also plays a part in the leg width. For the average figure it would be about 15 inches around.
- Another factor is a need to have smooth transitions along the seam, from inward to outward curves and straight sections.

Typically, the back leg is 1" wider than the front leg (1/2" wider on sideseam side, and 1/2" wider on inseam side), from hem to knee. It continues to be wider all the way up to the hip, tho it may be more or less than 1" wider, depending on your figure. Above the hip, not considering darts, it is also wider than the front, but after the darts are made, the front and back should be about the same width at the waist, for most figures (a very large apple would be an exception).

7. Take off pant, and line up inseam with sideseam of each leg from floor to knee. It's desirable to have the crease-lines should be on-grain from knee to floor, & your knee-center to lie on the crease lines when the seams are lined up **But if you have severe knock knees or bow legs, this may not be possible. Refit to bring them as close to desired as possible, while still obeying the key points (above).**
8. When you feel good about leg fit, baste these seams, adjusting the seamline for smooth transitions. Trim all seam allowances to 1", except through crotch curve, which will be 1/4" seam allowance. Cut off at hemline, or leave 1" extra just in case.

Try on again and refine seams as needed. Play with center front and back, both on grain and tilted (forward or backward) to get the best fit.

Mark darts and baste, then refine. (See section on [Draping Darts](#), for more detail).

First Draft of Sloper

9. Now transfer all seamlines including darts to your pattern, keeping grain line on-grain. Draw 1" seam allowances on all seams except 5/8" on center front and back, including crotch curves, and 1 1/2" hem allowance.

Lay front and back seams together to mark dots on seamlines at (see sketch):

- Hip & crotch depth lines on sideseam,
- Knee line on both sideseam and inseam,
- On inseams about half-way between crotch and knee, and
- On CB seamline where back crotch curve ends and straight line begins.

NOTE: back inseam will be shorter than front inseam (see Inseam Length Difference for more on this).

10. Cut this out of muslin or other fitting fabric, nipping notches at the dots. Mark centered grain line on front and back legs from floor to hip level. Mark horizontal lines (perpendicular to grain line) at hip, and thigh. Use a marker if fabric is disposable, or with yarn if you intend to wear this test.

Baste, refine fit, and transfer all changes to your pattern.

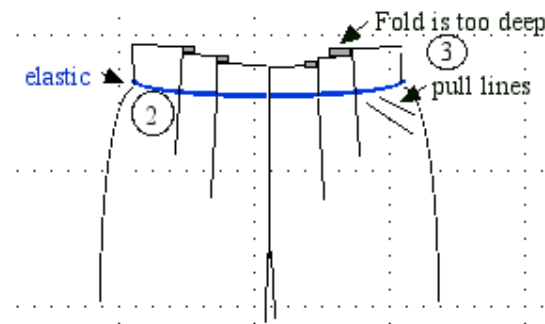
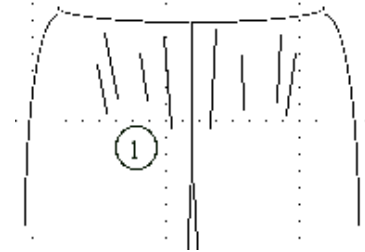
This shell is fitted as a slim pant. Not tight, but not loose like trousers. If you want to use this shell to make wider legs, add a front trouser pleat, or to make skin-tight jeans, it is possible, but you need to know some basics about moving darts, etc.. There are several good articles in Threads about this.

Draping Darts

An excellent reference for this subject is Kathleen Cheetham's article in Threads Volume 132 (Sept '07) on Plus-Size Draping: Drape a Skirt Sloper (<http://www.threadsmagazine.com/item/4668/drape-a-skirt-sloper>).

The following illustrates darts on the back, but the same process is also used on the front.

1. Before darning: try on pant to observe where fabric bunches, as that is where darning needs to be.



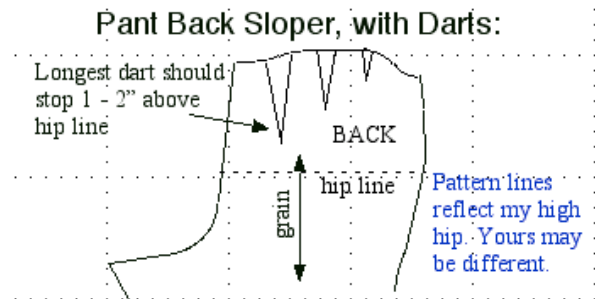
2. Fit elastic around waist to hold pant in place.

Smooth fabric from CB toward side. As soon as pull-lines appear, or when a natural fold happens, form a dart. Continue smoothing toward side, forming another dart as necessary. Ideally the main dart tip falls on the grainline that bisects the leg at the hem (or slightly towards center, from grain line).

3. If fold is too deep, pull-lines will appear, as

shown on the right side, above.

4. Once darts are positioned and sized, shape each dart with pins. Trace pin-line with chalk or other marker.
5. Refine darning in sideseams and CB, as well.
6. Transfer fitted darts to pattern. See right, for what my back darts look like.



If you don't have a helper:

It can be especially difficult to drape darts on the back. What follows is my story of doing it alone. It's tedious work on your own backside!

First some definitions:

Dart depth: this is distance from dart fold to stitching; it is half the total uptake of the dart. When I say 'pinch $\frac{1}{4}$ " I mean adding another $\frac{1}{4}$ " to distance from dart fold to dart stitching, or adding another $\frac{1}{2}$ " total uptake (total width, from stitching line to stitching line).

"Centered grain line" means the vertical grain line that bisects your own leg when viewed from the back (or from the front, if fitting the front).

My experience with draping darts

1. I made an educated guess, based on my past experience with skirt and pant darts on my body, where they might fit & look the best. For me:

- ✓ The longer dart looks best when lined up with the centered grain line. So I positioned it there, with 3/4" depth.
- ✓ The shorter dart is 1.5" away (toward sideseam) at the waist, with 5/8" depth.

2. I tried on the pant with the darts basted as described. The longer dart was perfect where I put it, but fabric still bunched up around CB, meaning that dart could have been bigger, or perhaps I could dart in the CB seam, or both.

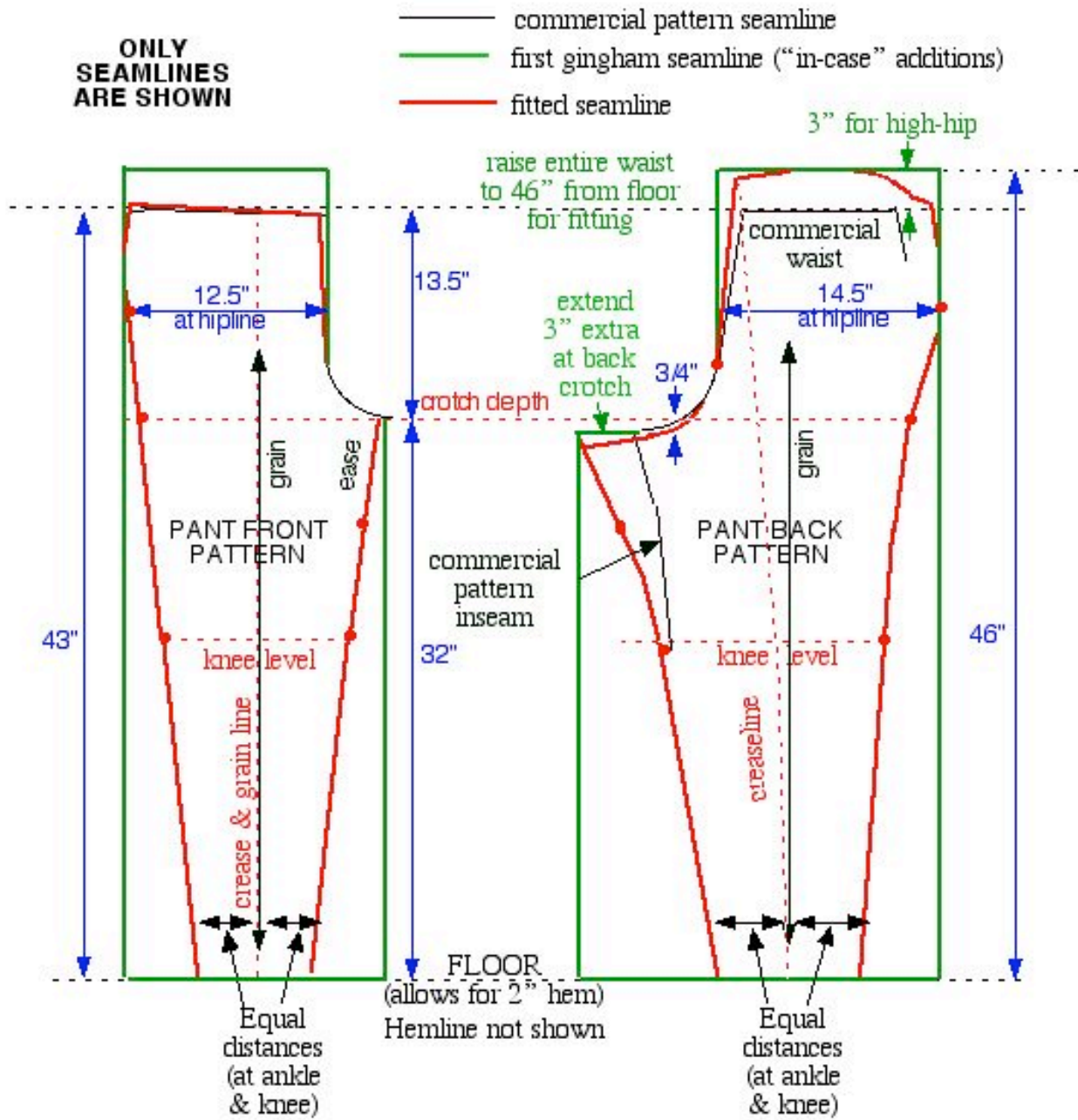
Reaching behind me, I pinched out another 1/4" depth on the long dart. Pull lines, angled upward from the CB toward my pinch. Then I tried pinching an extra 1/4" depth at the CB; no pull lines. I basted a new CB seam, tapering from previous seamline at hip level, to 1/4" deeper seam at the waist. Tried it on, and it looked good.

3. Next: the smaller dart. There were no pull lines where it was, but the waist was still too big, even for easing. Pinching resulted in pull lines if I added more than 1/8" depth. But that was not enough to make the waist fit. Pinching at the sideseam resulted in pull lines no matter how much (or how little) I pinched.
4. Next thing to try is adding a third dart. I got pull lines if I pinched it out between the second dart and the side seam. So, I tried moving the shorter dart toward the longer one (now only 1" away), to make room for the third dart 1" away from the middle dart, toward the sideseam. I could not pinch more than 1/8" depth for this 3rd dart, without getting pull lines. That wasn't enough.
5. Next thing to try: moving all 3 darts toward CB, to see if I could then take up more in each. That means the long dart no longer lines up with the centered grain line.

I moved all 3 darts over about 1" toward CB, keeping them the same width apart. This move allows the two longer darts to be a tad longer, which allows for adding another 1/16" in dart depth for each.

6. I basted my new darts and tried it on. The waist now fit with just enough ease. But gosh, I just didn't like the look of the pant, when the long dart was not lined up with that vertical bisect line. It wasn't that it didn't fit, but rather it seemed to make we look wider. So I needed to make a decision: 3 darts as I'd just basted, or move them back so that the long dart is centered and the waist has more to be eased into the band.
7. **For my new pants**, I chose the latter option. However, that meant my big dart had so much uptake that it puckered at the tip. Same for my middle dart. Executive decision time: I decided to do only 2 darts, 1.5" apart, and letting them out to original depth (to avoid that pucker at tip) - in other words, back to my starting point. Elastic in the back waist band allowed the waist to fit, when sewn out of my fabric.
8. **For the sloper**, I wanted the darts to reflect the best fit. That meant the 3 slightly longer and deeper darts, closer to CB, with a note that the long dart really looks best when lined up with the centered vertical line. Knowing I need that much darting, and where, will help when I use the sloper to make other styles, like jeans.

Sketch of starting gingham pattern, with final draped seamlines superimposed:



(my sketch saved in path: SEWING-KNITTING > PANTS THREADS > PANT DRAPING w D BRANDT > DRAPING for THREADS > F-B pattern-forThreads3)

My Learnings

Your learnings will be different; it's good to make note of them. Mine are:

- a. I didn't need much crotch extension on front, but I needed a fair amount on back.
- b. My CF was best slightly off-grain (about 1/4" off at waist, tilted toward sideseam).
- c. My CB was also best off-grain (about 3/4" off at waist, tilted toward sideseam)
- d. I had the longest waist-to-floor measurement in the area of the back darts, not at the CB which one would expect for a big butt.
- e. I only needed one narrow and short front dart, but got best fit with 3 deeper darts in back.
- f. My front was widest at tummy line (3" below waist), but my back was widest at full-buttock line (6 1/2 " below waist).

Inseam length difference

Why is the back inseam is shorter than the front (hey don't meet at the same level)?

This is European design, but can be found on many American patterns too. Some points to consider when drafting your slim pant (all gleaned from past Threads articles):

- The bottom of the back crotch curve is typically 1/2 inch lower than the tip of the front curve. Think about these two together as the bottom of a circle. The front curve doesn't quite make it to the bottom of the circle, while the back curve does, and then extends a bit to reach up and meet the front. *This reaching-up allows the back of the pant to cup under the buttocks for a better fit.*
- Pant patterns have a notch on the inseam about halfway between crotch and knee. The back inseam is typically 1/4 - 1/2" shorter than the front inseam between the crotch and the notch; below the notch, the inseams should line up to the hem. The longer front is then eased into the back inseam in the upper leg. *This allows for more comfortable movement when walking.*
- For mature figures like mine, where the buttocks have dropped (gravity), a deeper scoop in the back crotch curve allows the upper center back seam to stay up where it's supposed to be, not dragged downward to make room for the buttocks. *This helps the pant to stay put on the waist when sitting down.*
- Because I extended the back curve 3" beyond the commercial pattern's curve (to allow for my balloon buttocks), I experimented with the angle at which this extension gave the best fit. As you can see, it extends further downward, meeting the inseam at a right angle. This gave the best fit, and also *helped with cupping the back pant under, rather than hanging in wrinkles (bagginess) below my buttocks.* NOTE: If you don't have to extend the back curve, this won't apply, but the curve should still meet the inseam at a right angle.
- On my pattern, the back inseam slopes more than the front and is thus about 1/4 inch longer than it appears. So while I show a 3/4" vertical difference between front and back crotch curves (when laid side-to side like this), the actual inseam difference is only 1/2".

On grainline vs creaseline

While your sloper may be different, you will note on my sloper that the grain and crease lines are not the same line.

Definitions:

- **Grain**, meaning the warp of the fabric, is always straight and never angles.
- **Cross-grain** is the weft of the fabric.
- **Grainline** must always match the grain in the fabric (or crossgrain, if desired).
- **Creaseline** happens when pressing the pant: you line up inseam with sideseam from hem to crotch, then press the crease. The crease line is always centered between inseam and sideseam for the leg. Above the crotch, the crease continues on the front to line up with the dart closest to CF, and on the back to the point where CB intersects the waist.

Grainline:

In fitting, extended grain line from hem to waist is very important:

Draw a grain line, truly following the warp, from center of hem all the way to the top (in other words, a straight line from hem to waist), it will fall somewhere along the waist between the CB and the first dart for most people.

Mark it so you can see it when you try on your pant (I fold on the line, then hand baste close to the fold through both layers):

- **Back leg:** this line should go down the middle of the buttock, middle of the thigh and middle of the lower leg.
- **Front leg:** this line should line up with the dart closest to CF, then go down the middle of the thigh and middle of lower leg.

When the grain line does as described, it is perfectly vertical. If this grain line doesn't do as described, something is wrong. If it is not vertical, you will get drag lines somewhere.

Creaseline:

While it is desirable to have crease line follow the grain on back leg from hem to knee, mine does not do this, because I have slim hips on the side, and a deep crotch extension. Since the creaseline is centered between my narrower sideseam position and my wider inseam position near the crotch, this shifts my creaseline toward the center of the body.

For people who have saddle-bag hips, the crease line will likely follow the grain line from hem to crotch-level, and then diverge from grain to the CB.