Chapter 447

TOP-DOWN SHAPING

We can chart top-down garment shaping in a very similar way to the bottom-up method. Instead of doing bind-offs and decreases around the arms and neck, we'll do cast-ons and increases.

Let's imagine a one-size vest pattern with no written-out instructions; it has only the following chart for the front and back.

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How do we work from this chart?

Preliminaries

The project photo shows a crew-neck sweater, so that gives us a good clue. Worst case, we can always turn the page upside-down in what would be the wearing orientation if we're having trouble seeing what's what.

Shoulder Shaping: A Rows

Starting from the bottom of the chart, we see shoulder shaping. Since the rows add a few knit symbols at a time, we know the neck edge of each shoulder will be a bit higher than the armhole edge.

Front Neck Shaping: B Rows

The crew neck accounts for what's happening in rows B1 through B19, where we start to fill in the gap in the center front. Eventually, there are stitches all the way across the width between the armholes, indicating the bottom (when the garment is worn) of the crew neck.

The unnumbered row between the A and B rows allows us to determine just how low we want the bottom of the crew neck to be. If we did a lot of rows between the end of the shoulder shaping and before the beginning of the neck shaping, then we'd have a vest with what might be more accurately called a U-neck.

Underarm Shaping: C Rows

The C rows show the underarm shaping, with the last two C rows adding a lot of stitches all at once to get the proper width at the chest.

The single row between the B and C rows allows us to work the armhole to the correct depth before we start the underarm shaping. For folks who need taller armholes, we work more rows, while those who need shorter armholes work fewer rows at this location. In any case, all of those rows are represented by the single, unnumbered row.

Left and Right Are Switched

Since we're working top-down, we have to mentally adjust which half of the chart is which half of the wearer. Everything is now reversed compared to working bottom-up.

When we're making the front from this chart, the right half of the chart is the wearer's right front, and the left half of the chart is the wearer's left front. When we're making the back from this chart, it's the opposite. The right half of the chart is the wearer's left back, and the left half of the chart is the wearer's right back.

Once again, we can use a mental picture of holding this chart next to the wearer, except that now we hold it as though we're looking down at the top of the wearer's head. When the chart is held out horizontally next to the wearer's face, the right half of the chart is at the wearer's right shoulder. When we hold the chart horizontally next to the back of the wearer's head, we see the right half of the chart is at the wearer's left shoulder.

The Vest Back

Some of the techniques we saw with the bottom-up chart can be used here. For example, in the bottom-up chart, we saw that we could show front neck shaping two ways: with boundary lines or with a blank area. This top-down chart is showing the front neck shaping with a blank area. When we work the back from this chart, we will have to mentally—and of course with yarn—fill in the blank area with stitches. Let's walk through how we follow the chart as we work the vest back. Here's the shoulder portion of the chart again.

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Casting On

Since we need to fill in with stitches the chart's front neck gap when we work the back, we need to cast on stitches twenty-three through sixty-nine inclusive, forty-seven stitches total.

Now we need to figure out which row of the chart we **actually** start with. Why? Our cast-on method determines whether the first row we work is a public- or private-side row. If we first work a public-side row after we cast on, we work row A1 as described in the next paragraph. But if the first row we work after our cast-on would be a private-side row, then we need to treat the cast-on itself as row A1, which means we turn the work and skip ahead to the instructions for row A2 in the next paragraph.

On row A1, we work across all the stitches. When we turn for row A2, the chart shows row A2's first and last stitches, stitches sixty-nine and twenty-three, exactly on top of those of row A1, which means we work across row A2 evenly.

The Shoulder Shaping

When we look at the beginning of row A3, we see that it's three stitches longer than row A2, because there are now knit symbols in stitches twenty through twenty-two. Since we need to add more than one stitch, we will cast on three stitches, as opposed to simply doing an ordinary one-stitch increase like a KFB or make one.¹

Depending on our exact cast-on method, we might actually have to add the three new stitches before we turn at the end of row A2. For other techniques, we would cast them on after we turn.

We work to the end of row A3, where we see that it's longer than row A2, because there are now knit symbols in stitches seventy through seventy-two. Since row A3 goes past the beginning of row A2 by more than one stitch, we have to cast on three new stitches. Once again, we will add the three new stitches either before or after we turn to start row A4, depending on our cast-on method.

Since row A4's stitches first and last stitches are exactly on top of the last and first stitches of row A3, we simply work them all evenly.

¹ Casting on two or more stitches while working top-down is the equivalent of binding off two or more stitches while working bottom-up.

Chapter 447, version 2: Top-Down Shaping

When we look at the beginning of row A5, we see it's three stitches longer than row A4, so we cast on three. As we get to the end of row A5, we again see it's longer than row A4, so we cast on three.

We continue to compare the next row to the current row (or the current row to the previous row), and if there's a difference of two or more stitches, we have to cast on that number of stitches.

Once we finish row A7, where we add three stitches at both ends, we look back at the full chart and see that we've completed the back's shoulder shaping. The chart shows row A8 as worked evenly on all the stitches of row A7. Including that private-side row allows us to start the next section on a public-side row.

Since we're working the back, we skip entirely all the B rows, because they show the front neck shaping. The next chart section that we'll work contains the C rows for the underarm shaping. But before we can start working the C rows, we have to work some rows evenly on the stitches we now have from armhole to armhole (the cross-back stitches x from appendix 528).

Armhole Depth and the Underarm Shaping

How many rows do we need to work evenly before we start the C rows? We need to work enough rows so that when we finish the C rows, the armholes have the correct number of total rows for the needed armhole depth when we count from the end of the shoulder shaping to the end of the underarm shaping.

To do this, we have to take into account our working row gauge and the final armhole depth we need, exactly as we did when working bottom-up. Just to keep things easy, let's use the same information we used for the bottom-up shaping in chapter 430. We saw there that we needed sixty-three rows (seven rows per inch times nine inches) to make the armhole tall enough so that when we added the inch of armhole ribbing, the final armhole was eight inches tall. For convenience, we bumped up to sixty-four rows, which allowed us to start the shoulder shaping on a public-side row.

When we worked bottom-up in chapter 430, row **one** was the **first** underarm shaping row, and row **sixty-four** was the **last** row **before** the shoulder shaping **started**.

Now that we're working top-down, we swap the row numbers and reverse all the bold words.

Thus, row sixty-four will be the last underarm shaping row, and row one will be the first row after the shoulder shaping ended.

Here's the chart for the vest back with all the actual row numbers (it's for the back only, because we've eliminated the front neck B rows). The double-numbered row shows that af-

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ter we finish the shoulders' A rows, we work rows one through forty-eight evenly on those sixty-five stitches.

And again, since we're making the back, the gap in the three central columns will be filled in with stitches from the very beginning of the chart, in row A1.

How do we work rows forty-nine through sixty-four?

Underarm Curves

When we turn at the end of row forty-eight, we see that row forty-nine starts one stitch (stitch thirteen) past where row forty-eight ended (stitch fourteen). Since there's a difference of only one stitch between the two rows at that spot, we do a single increase, like a KFB or a make one, at the beginning of the row. When we get near the end of row forty-nine, we see that it ends at exactly the same stitch, stitch seventy-eight, where row forty-eight started. So at the end of row forty-nine, we work evenly, without doing an increase there.

When we turn to work row fifty, we see it starts one stitch sooner (stitch seventy-nine) than where row forty-nine ended (stitch seventy-eight). So we do our preferred increase at the beginning of row fifty. At the end of row fifty, we see it is exactly above the beginning of row forty-nine, at stitch thirteen. So we simply work evenly to the end of row fifty without doing any kind of increase there, then turn.

We continue to work back and forth, doing our preferred increase at the beginning of each row and working the end of each row evenly, up through and including row sixty-two.²

Underarm Cast-Ons

When we approach the end of row sixty-two, we see that row sixty-three starts six stitches past where row sixty-two will end. Since the difference is more than one stitch, we have to cast on the number of new stitches shown. So we cast on six, either before or after (based on our cast-on method) we turn to work row sixty-three.

² Increasing while working top-down is the equivalent of decreasing while working bottom-up.

As we approach the end of row sixty-three, we see that row sixty-four starts six stitches past the end of row sixty-three. So we will cast on six either before or after turning for row sixty-four, depending on our cast-on method. We work to the end of row sixty-four, and since it ends exactly above the beginning of row sixty-three, we're done with the underarm increases.³

We are now up to the full width of ninety-one stitches, so we would then work evenly the rest of the way.⁴

The Vest Front

When we worked bottom-up, we had to use separate balls once we started working on the front neck. We had the choice of finishing the first shoulder before starting the other, or we could work both shoulders at the same time using two balls of yarn.

We'll have to do the same thing here, only in reverse. Working top-down, we start at the very top of the shoulder with row A1. We then have the same two options we had working bottom-up:

We can use two balls of yarn to work both front shoulders simultaneously.

We can work one front shoulder to a certain point, then work the second front shoulder to the same point.

What's the "certain point" we have to work to in the second option? If we look back at the full chart, we see that on rows B1 through B18, there is a gap between the two groups of stitches. But on row B19, there are knit symbols all the way across the row; there are no more gaps.

So we work each front shoulder through row B18. On row B19, we work across the right front, cast on stitches to fill the gap at the bottom of the neck, then work across the left front with the right front's ball of yarn, having broken off the left front's yarn. Once we've joined the two pieces this way, we'll work the rest of the vest front as one piece.⁵

Positioning the Crew Neck Shaping

Where do start doing the increases to fill in the crew neck? We'll assume ribbing will be put around it, so we must remember to allow for it while deciding where to start the neck shap-ing.

³ Increasing many stitches on the last two underarm shaping rows while working top-down is the equivalent of binding off many stitches on the first two underarm shaping rows while working bottom-up.

⁴ Of course, we would probably do some decreases before we started the bottom ribbing.

⁵ Starting the front shoulders as two pieces that are then joined at the bottom of the front neck while working top-down is the equivalent of splitting the front shoulders into two pieces after the bottom of the front neck is completed when working bottom-up.

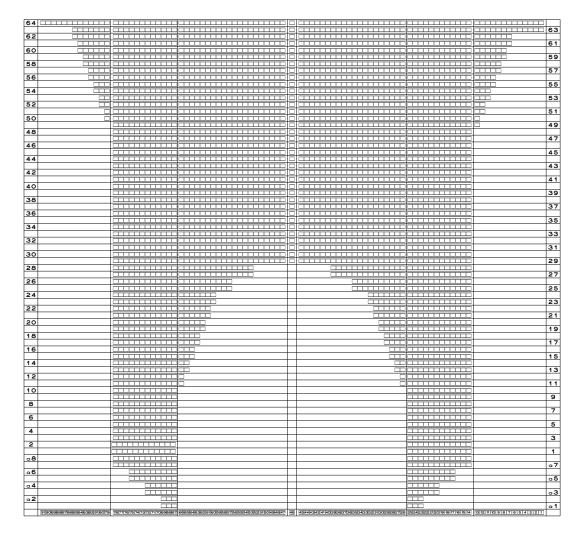
We have to take our row gauge into account to determine the starting point. If we start too soon, the neck may not be far enough down for the wearer's head to get through or the finished edge of the neck ribbing may be so high that it constantly rubs the wearer's throat.

Let's assume that we want the **finished** front neck (the top of the neck ribbing) to be three inches lower than the armhole edge of the shoulders. In the same way that we had to work the vest's armhole depth an inch deeper while working bottom-up because the ribbing would make the finished armhole an inch shorter, we need to add the one inch of ribbing depth to the desired finished neck depth of three inches. At seven rows per inch, we need what will be the bottom row of the front neck, row B19, to be in project row twenty-nine (seven rows per inch times four inches, plus one row so we finish the neck shaping on a public-side row).

We start with the shoulder shaping chart, then add enough rows above it so that we can show explicitly every row through the end of the neck shaping on project row twenty-nine.

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For the full as-worked chart, we add enough rows above row thirty so that we can show every row through row sixty-four, which is the last row of the underarm shaping.



We can make the chart a bit shorter by doing our trick of double-numbering where rows are worked evenly.

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Working the Wearer's Right Front Shoulder

Let's start with the wearer's right shoulder (stitches fourteen through twenty-five) and work only one shoulder at a time, just to keep the explanations easier.

Shoulder Shaping

Since the first row, row A1, is only three stitches wide, we will cast on three stitches, then turn and work them.⁶

For row A2, we simply work the three stitches. When we look at row A3, we see that it starts three stitches beyond where row A2 ended. Depending on our preferred cast-on, we will cast on those three stitches before or after we turn to work row A3.

Row A4 just works evenly the six stitches of A3, then row A5 starts three stitches beyond the end of row A4. We again cast on, either before or after we turn. We finish the rest of the shoulder rows the same way, either working evenly or casting on as shown.

Now we work evenly on project rows one through ten, because we don't start the crew neck shaping until row eleven.

⁶ However we handled the cast-on on the back (whether we worked row A1 after it or had to consider the caston itself to be row A1), we must work both front shoulders the same way.

Interpreting the Neck Shaping

All the work we did reading the back's underarm shaping is now going to work the same way for the front's crew neck shaping.

As we work across row eleven, we see that it ends one stitch past where row ten began, so we do our favorite increase at the end of row eleven. When we turn, we see that row twelve starts and ends at exactly the same places as row eleven ended and started, so we just work row twelve evenly.

We do the same combination of increasing at the end of a row and working evenly on the next row with pairs of rows from row thirteen through row twenty-four.

At the end of row twenty-five, we see three stitches go past the beginning of row twenty-four, so we need to cast on three stitches before or after we turn for row twenty-six (depending on our cast-on method). We work back to the armhole edge, where we continue to work evenly throughout the neck shaping.

As we approach the end of row twenty-seven, we see it's four stitches longer than what we already have on the needles. We cast on those four stitches, then work back across row twenty-eight.

When we look ahead on row twenty-nine, we see that we have finally reached the spot where we will work the front as one piece all the way across the vest front between the edges of both armholes.

That means we've now finished the right front shoulder, so we put it aside. There's absolutely no need to break the yarn we've been using on the right shoulder, unless we like weaving in extra ends. We'll continue to use this right-shoulder ball when we work row twenty-nine across the entire front.

We must now work the left front shoulder to the same spot, through row twenty-eight.

Working the Wearer's Left Front Shoulder

To start the wearer's left front shoulder (stitches sixty-seven through sixty-nine), we again cast on three, and we need to do the same thing for row A1 that we did on the back and on the right front shoulder.

We turn and work row A2 in the ordinary way, without forming any new stitches. When we look at the right shoulder's row A3, we see that it goes on for three stitches past the beginning of row A2. So, depending on our preferred cast-on, we cast on those three new stitches before or after turning for row A4. We work back and forth, adding stitches at the armhole end of the public-side A rows and working evenly on the private-side A rows.

We then work evenly on rows one through ten.

Interpreting the Neck Shaping

When we work private-side row ten and turn, we see that row eleven starts one stitch beyond where we just finished row ten. So we have to increase one stitch at the beginning of the row, work evenly to the end of the row because it ends where row ten began, and turn. Row twelve simply works all of the stitches evenly.

Rows thirteen through twenty-four work the same combination: we increase one stitch at the beginning of the public-side rows and work evenly the private-side rows.

When we get to the end of row twenty-four, we see that we need to add three stitches at the beginning of row twenty-five. Depending on which cast-on method we use, we may have to cast them on before or after we turn for row twenty-five.

We work row twenty-five to the end of the row, where we simply turn to the private side because the armhole edge is straight up and down. At the end of row twenty-six, we see that row twenty-seven needs to be four stitches longer at the neck (not the armhole) edge. We cast on and turn—or we turn and cast on—depending on the method we use, then we work to the end of row twenty-seven and turn. We do no shaping at the armhole edge, and we simply work to the end of row twenty-eight, since it ends where row twenty-seven began.

At this point, we break off the yarn we used for the left front shoulder, because we'll work the rest of the front with the yarn still attached to the right shoulder.

Joining the Two Shoulders

We've reached the point where we'll finish the front neck shaping, but we have to do so the right way.

First, we work row twenty-nine across the right front shoulder with the yarn that we left attached to it. At the end of the row, instead of turning and working back to the right armhole, we cast on the thirteen stitches across the flat bottom of the crew neck, stitches forty through fifty-two inclusive, as shown on row twenty-nine. Depending on the method we use to cast on these brand-new stitches, we may have to temporarily turn the work. But when we're done casting on, we need to make sure we're looking at the public side of the right front shoulder.

Now we have to work across the waiting stitches of the left front shoulder, but we need to be very careful to start at the correct end of its last row. We must first work stitch fifty-three of the left front shoulder. Doing so will make the neck shaping curve in the correct direction and the top of the shoulder slant in the correct direction.⁷

If we first work stitch seventy-eight instead, we will wind up with two right front shoul-

⁷ It will be easy to start at the proper end of the right front shoulder when the vest is plain stockinette, stranded colorwork, or intarsia, because the public and private sides will be so obviously different. For texture patterns, it will be a bit more difficult, so we need to be sure the edges curve and slant the correct way.

ders instead of mirror-image right and left shoulders. We must double- and triple-check that we are looking at the public side of the left front shoulder before we work across it on row twenty-nine.

Underarm Shaping

Now that we have all the armhole-to-armhole stitches of the front on one needle and are working across them with one ball of yarn, we work evenly on those sixty-five stitches up to and through project row forty-eight. When we turn to start row forty-nine, we do the underarm shaping exactly the same way as we did on the back.

Other Top-Down Charting Topics

Some projects may handle various shapings in different ways.

No Shoulder Shaping

The vest might have had no shoulder shaping at all, so its top-down chart would then start like this:

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Here the two rows indicate that we just cast on twelve stitches for each shoulder, then work evenly as many rows as we need to before we start the neck shaping.

Increases Specified

Some charts may need specific increases (and decreases, for that matter) to get specific effects. The charts in this chapter don't specify which increase to use, as some increases are pretty invisible while others are quite obvious. Each of us will have a preference and are completely free to use what we like.

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