## Chapter 445

## ONE CHART, SIX SIZES

In chapter 430, we charted the underarm, shoulder, and front neck shaping from the writtenout instructions for the size small vest from chapter 410.

For each of the other five sizes, we can construct the same charts. But most knitting books won't show separate charts for each size, simply because doing so would take up too much space. Instead, they'll show all the sizes on as few charts as possible, depending on how much the sizes overlap. In some designs, there might be enough difference in the sizes to show all of them in just one chart.

Most designs will also show one chart for both the front and the back, even though the two pieces will probably have different neck shaping. We must therefore ignore one piece's neck shaping while working the other piece.

## Remember Our Very First Charting Rule!

When we look at shaping charts, we have to remember the very first charting rule, that we're looking at the public side of the work. The chart shows us what we see when we look at someone wearing the finished garment.

That means that when we're working the back, the right edge of the chart is at the wearer's right and the left edge of the chart is at the wearer's left. Think of the chart being held up below the back of the wearer's head. (Note back and back go together.)

But when we're working the front, they're reversed. The right edge of the chart is at the wearer's left, and the left edge of the chart is at the wearer's right. Think of the chart being held up below the wearer's face. (Note front and face both start with f.)

## General Notes

I've drawn these multi-size charts somewhat differently compared to charts I've seen in other books.

The underarm and front neckline shaping chart is shown separately from the shoulder shaping chart, because the smaller sizes' shoulder shaping would obscure the larger sizes' neck shaping. (This issue is probably due entirely to my not being an actual designer.)
Unlike the boxed stitch numbers in the size small charts in chapter 430, the numbers here start with one in the center symmetry stitch and increase toward both underarms so that one set of stitch numbers works for all six sizes.
(2, The row numbers are inside both charts to reduce the chart width, which in turn allows the symbols to be a bit bigger. We would simply work the stitches under the row numbers in the usual way, knitting them or purling them depending on whether
we are working a public- or private-side row (since we're still assuming plain stockinette is the vest's main fabric).
All the decrease and bind-off symbols have been changed to plain knits. If the special symbols had remained, they would have conflicted with one another at several points, which would make it very hard to read each size. The only special symbol is the one at the very center of the bottom of the V-neck, the downward arrow indicating that the dead-center stitch is put to a holder on row one when we're working the front of the vest.
The dashed horizontal line at the top of each size in the underarm and front neckline chart indicates explicitly the point at which we start working evenly to the desired underarm depth on the stitches remaining after completing the front neck shaping. (For the back, we reach the point of working evenly as soon as the underarm shaping is complete.)

## Underarm and Front Neckline Chart

In this design, the underarm shaping overlaps a bit in the larger sizes, because the cross-back stitch count between the vertical edges of the right and left armholes (stitch count x in appendix 528) does not increase as fast as the chest stitch count does. Even so, it's still easy to see the borders of each size.

The boundary for the size small is shown with the solid magenta line, medium with orange, large with yellow, XL with green, and XXL with cyan. The XXXL is identical to the XXL, except that there are five more stitches (stitches sixty-seven through seventy-one inclusive) at the underarms on rows one and two to make the chest measurement bigger. ${ }^{1}$

The solid magenta lines forming the V shape represent the two edges of the front neck. We'll ignore those for the time being and read the chart as we would when making the back of the vest.

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## Interpreting the Chart for the Size Small Vest Back

According to the instructions in chapter 410, when we've worked from the bottom edge to the desired length to the underarm, we complete a private-side row and turn. The first shaping row, done on the public side, is called row one for all six sizes.



Using close-ups of the underarm shaping, let's look at the size small in detail. How do we read the size small's solid magenta boundary lines? (Remember that on every row we work stitches twenty-four through twenty-four in the gap caused here by using partial charts.)

## Underarm Bind-Offs

When we find the beginning of the solid magenta line at the bottom of the right edge of the chart, we see that on row one, there are six stitches, stitches forty-one through forty-six, with a horizontal segment above them. Since the horizontal segment is more than one stitch wide, that means that we bind off those six stitches at the beginning of row one for the right underarm. As we work across the row and approach the other stitch forty-six at the left un-
derarm (at the left edge of the chart), we see that there's a vertical segment past it. The vertical segment represents the end of row one for the size small, so we work up to and through that stitch forty-six, then turn. (Of course, that left-hand stitch forty-six is the last stitch, the ninety-first, that we had on our needles when we began row one.)

At the beginning of row two at the left underarm, the same six stitches are under a horizontal segment more than one stitch wide, so we bind them off. We work toward the end of row two, where we again see a vertical segment just past stitch forty. So we work up to and through stitch forty at the right end of row two (which is the natural end of the row because we'll run out of stitches), then turn.

These two chart rows match the written-out instructions to bind off six stitches at the beginning of the first two underarm rows.

## Underarm Curves

On row three in the right half of the chart, there is a vertical segment between stitches thirtynine and forty. There is no vertical segment below it in row two, but there is a horizontal segment just one stitch wide below row three's stitch forty. The combination of these two segments means we do a single decrease at the beginning of row three because row three is one stitch shorter than row two at that spot. We work toward the end of row three at the left edge of the chart, where stitch forty, as indicated by the vertical segment just past it, is the last stitch we work, then we turn.

On row four at the left underarm (at the left edge of the chart), we see the vertical segment between stitches thirty-nine and forty, and we also note that there is no vertical segment in that location on row three. Beside and below stitch forty at the beginning of row four, we have the same pair of vertical and horizontal segments that we had around stitch forty at the beginning of row three. So we do a single decrease at the beginning of row four because at that point it's supposed to be one stitch shorter than row three. As we work toward the end of row four, we see a vertical segment past stitch thirty-nine, making it the last stitch of the row.

Since rows five, seven, nine, eleven, thirteen, and fifteen are all one stitch shorter than the private-side rows below them, as shown by the vertical segments, and because there is a horizontal segment below each vertical segment's adjacent stitch, we know we decrease one stitch at the beginning of those six rows for the right underarm curve.

At the left underarm, we see on rows six, eight, ten, twelve, fourteen, and sixteen the same pairs of vertical and horizontal segments, indicating we do a decrease at the beginning of each of those six rows.

The chart shows a decrease of one stitch at the beginning of the fourteen rows after the underarm bind-offs, exactly matching the written-out instructions. ${ }^{2}$

## Armhole Edges

The vertical segment between stitches thirty-three and thirty-four on row seventeen in both halves of the chart is on top of a vertical segment between the same two stitches in row sixteen. That means we work those edges evenly, neither binding off nor decreasing. If we look back at the full chart, we see that at that location on each armhole, vertical segments on top of one another go all the way up to row forty, showing that we work both armhole edges evenly after we complete the underarm shaping on rows fifteen and sixteen.

Above row forty on the full chart, there is a dashed horizontal magenta line. The dashed line indicates that we continue to work evenly on the stitches that remain for as many rows as we need to get the proper armhole height.

When the armhole is tall enough, we switch to the shoulder chart.

## Interpreting the Chart for the Size XXL Vest Back

Here are partial charts showing the left and right underarms at, respectively, the left and right edges of the chart. Since these partial charts have to show more stitches, the symbols are all smaller than in the size small partial charts. (And we would have on our needles, and need to work, stitches twenty-seven through twenty-seven across the gap between the two partial charts.)


## Underarm Bind-Offs

Looking at the beginning of the solid cyan line at the bottom of the right half of the chart between stitches sixty-six and sixty-seven, we see a very long horizontal segment above row one, so we bind off all fifteen stitches below it, stitches fifty-two through sixty-six inclusive, for the right underarm. As we work toward the end of the row, we see a vertical segment after the left-hand stitch sixty-six, so that's the last stitch we work on row one, then we turn,

[^1]which is a good thing, because that's the same point where we run out of stitches on our source needle.

At the beginning of row two, there is the same long cyan horizontal segment above its first fifteen stitches, so we bind them off for the left underarm. As we approach the end of row two, we see a vertical segment after the right-hand stitch fifty-one, which is the last stitch on our source needle, so we work up to and through it, then turn.

The chart's long horizontal segments match the written instructions to bind off fifteen stitches on the first two underarm shaping rows for the size XXL.

## Underarm Curves

On rows three, five, and seven, a horizontal segment is above the first two stitches of each of those rows, indicating that we bind them off on each of those rows to start the curve for the right underarm. The last stitch we work on those rows is the one just before the vertical segment at the ends of the rows.

There are corresponding horizontal segments above the first two stitches at the beginning of rows four, six, and eight at the left underarm, so we bind off the first two stitches of each of those rows for the beginning of the curve for the left underarm, then turn after we reach the stitch that's followed by a vertical segment in the right half of the chart.

Rows nine, eleven, thirteen, and fifteen are all one stitch shorter than the private-side row below each of them, as indicated by the same combination of vertical and horizontal segments that we saw in the size small, so we do an ordinary decrease at the beginning of those four rows to complete the right underarm shaping.

There are similar combinations of vertical and horizontal segments at the beginning of rows ten, twelve, fourteen, and sixteen at the left underarm, which indicate the ordinary decrease that we must make at the beginning of each of those rows to complete the left underarm shaping.

The XXL boundaries show that after we bind off for the underarms, we bind off two stitches at the beginning of the next six rows, then decrease one stitch at the beginning of the next eight rows, exactly as directed in the written-out instructions.

## Armhole Edges

We finish all the underarm shaping on rows fifteen and sixteen, and when we look back at the full chart, we see vertical segments on top of one another between stitches forty-one and forty-two on both halves of the chart, indicating that we work evenly at both edges on all those rows. Above row forty-six, we see the dashed horizontal cyan line, so we continue to work evenly until we reach the necessary armhole depth, then we switch to the shoulder chart.

## The Shoulder Chart

This chart seems more difficult because of the way the sizes overlap. If it looks tricky here, imagine what it would look like if these boundary lines were included on the underarm and front neckline chart!

As before, the boundary for the size small is shown with a solid magenta line, medium with orange, large with yellow, XL with green, and XXL with cyan. The XXXL shoulder shaping is identical to the XXL. (The large and XL are also the same, since their boundaries are the same.) The boxed stitch numbers correspond to the stitches remaining for each size after the armhole shaping is complete.


## Interpreting the Chart for the Size Small Vest Back

For this chart, all the stitches below each boundary are the shoulder stitches for that size. As with the underarm and front neckline chart, this chart shows both the front and the back shoulder shaping. The tall solid vertical segments between the two (uncharted) stitches numbered twenty-one and the two charted stitches numbered twenty-two represent the front neck's boundaries. If we look back at the full chart, we'll see that stitch twenty-two is the in nermost stitch that remains after we complete the size small V-neck decreases. That matches where the vertical boundaries are drawn here.

But while we're working the back of the vest, we will have the forty-one stitches in the gap between the two portions of the chart, from stitch twenty-one on one half through stitch one in the very center to stitch twenty-one on the other half. We will ignore the vertical segments on the inner side of stitch twenty-two in both halves of the chart, since they don't apply while we're working the back.

As with the underarm and front neckline chart, all six sizes start their shoulder shaping on what's labeled as row B1.

Since we are instructed to complete the required armhole depth with a private-side row, we turn and are ready to do the first shoulder shaping row. We look for the size small's solid magenta boundary, starting from the right edge of the chart. We find a vertical line between stitches thirty-three and thirty-four, so stitch thirty-three is where we begin reading the chart.

Stitch thirty-three will be the first one on our needles. (If we look back at the underam and front neckline chart, we see the tall vertical lines showing the edges of the armholes between stitches thirty-three and thirty-four.)

On shoulder shaping row B1, the first three stitches, stitches thirty-three through thirtyone, are under a horizontal segment. Since the segment is more than one stitch wide, that means we have to bind off those stitches, then continue along the row, including the fortyone stitches not shown explicitly in the gap where the row numbers are.

When we have worked stitch thirty-three on the left shoulder (at the left edge of the chart), the vertical segment tells us to turn, which is a good thing, since that's where we run out of stitches on our source needle.

On row B2, the horizontal segment above stitches thirty-three through thirty-one indicates they are likewise bound off at the beginning of the row for the left shoulder. Then we work toward the right shoulder, where the vertical segment after stitch thirty shows us that we turn, since it's the last stitch on our source needle.

Stitches thirty through twenty-eight, twenty-seven through twenty-five, and twenty-four through twenty-two are all likewise under a horizontal segment more than one stitch wide on both halves of the chart, indicating they are all bound off at the beginning of their rows.

The chart shows that we bind off three stitches at the beginning of eight rows, exactly as the written-out instructions in chapter 410 say.

## Interpreting the Chart for Sizes XXL/XXXL of the Vest Back

After we complete the underarm shaping on rows fifteen and sixteen of the underarm and front neckline chart, the solid cyan vertical lines between both pairs of stitches numbered forty-one and forty-two tell us to work evenly on those stitches until the armhole is deep enough. We finish a private-side row and turn, ready to start the shoulder shaping with the public-side row labeled B1 in the shoulder chart.

The XXL and XXXL sizes, both indicated by the solid cyan line, have the same number of total shoulder stitches as well as identical bind-offs. As with the size small, we completely ignore the vertical cyan segments between stitches twenty-four and twenty-five on both halves of the chart while we're working the back, since they show the inner edges of the front neck shaping.

We bind off three stitches at the beginning of rows B1, B3, and B5, as indicated by the horizontal segments above stitches forty-one through thirty-nine, thirty-eight through thirtysix, and thirty-five through thirty-three for the right shoulder.

There are corresponding horizontal segments above the same groups of three stitches on rows B2, B4, and B6, so we also bind off three stitches on each for the left shoulder.

On rows B7 and B9, the horizontal segments are four stitches wide, from stitches thirty-
two through twenty-nine and stitches twenty-eight through twenty-five. Those four-stitchwide horizontal segments indicate that we bind off the four stitches below them at the beginning of those two rows to finish the right shoulder.

There are horizontal segments four stitches wide at the beginning of rows B8 and B10, so we bind off four stitches on each of those two rows to finish the left shoulder.

The chart matches the written-out instructions to bind off three stitches at the beginning of six rows, then bind off four stitches at the beginning of a total of four rows.

## Working the Vest Front

How do we work the front? If we look back at the underarm and front neckline chart, we see that we have four solid magenta lines representing the boundaries of the size small. We already know how to interpret the underarm bind-off and curve shaping (the outermost boundary lines).

How do we interpret the innermost pair of boundaries, the ones that form the V-neck? Can we use the same techniques we used for the underarm shaping while we work the neck decreases?

## Both at Once or One at a Time?

The left and right front necks have to be worked independently in one of two ways. We can either (1) work both left and right at the same time with two balls of yarn or (2) complete one front neck, then attach new yarn to work the other.

If we choose the second option, we ought to put the other group of front neck stitches on a holder to minimize strain. The rest of this section assumes we're using option two.

## A Special Case

Because the front neck boundary on rows one through forty is shown only by the size small's solid magenta lines, we can assume the other five sizes use the same boundaries for those rows. (Trying to put the other sizes' boundary lines in the exact same place as the size small's would only obscure the V-neck boundaries for all six sizes.)

Since the larger sizes work a few more rows than the size small to complete the front neck shaping, there are short vertical lines two rows tall on rows forty-one through forty-six in the other sizes' boundary colors to show where we continue to do front neck decreases for those sizes.

## Remember the Front Is Shown from the Public Side

Since the chart shows what the piece looks like while it's being worn, we have to remember
that the right half of the chart is at the wearer's left and the left half of the chart is at the wearer's right. Just imagine holding the chart up below the wearer's face to keep it straight mentally.

## Interpreting the V-Neck Shaping

Let's look at the bottom center of the underarm and front neck shaping chart so we can concentrate on the initial neck decreases.

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## The Left Front Neck

When we were coming to the end of a public-side row during the underarm shaping, we stopped with the last stitch before a vertical boundary segment. We'll do the exact same thing here.

We work whatever underarm shaping is shown at the beginning of row one. As we're working toward the left front neck edge (in the right half of the chart), we see a vertical segment after stitch three. We also see a special symbol in stitch one. For this particular project, we read in the instructions that we put the front's dead-center stitch on a holder on the same row that we start the underarm shaping. That means that the downward arrow symbol in stitch one of the front's row one is the stitch we put to a holder to become the center of the neck ribbing.

Since the left front neck has a vertical segment between stitches two and three, then what are we supposed to do with stitch two? Do we work it? No, we are supposed to make that stitch disappear so that row one is shorter by one stitch than the right half of the (uncharted) private-side row below it. So when we have worked stitch four, we work a decrease on stitches two and three. That decrease shortens the left neck's row one by one stitch at the neck edge. Now that we're at the end of row one on the left front neck, we turn, leaving the right front stitches unworked and putting them on a holder (since we're working one shoulder at a time).

Since row two of the left front has a vertical segment in the same place as on row one (between stitches two and three), we simply work each stitch at the beginning of row two evenly, neither decreasing nor binding off. We work back to the left armhole, do whatever the complete chart shows there, then turn.

We do whatever shaping is needed at the beginning of row three as indicated by the full
chart. As we come to the end of row three of the left front neck, we again see from the vertical segment after stitch four that row three should be one stitch shorter at that spot than row two. We work to the last two stitches, decrease, and turn. Since the beginning of row four is exactly above the end of row three, as indicated by row four's vertical segment between stitches three and four being above a vertical segment in the same spot in row three, we simply work row four from the beginning, neither binding off nor decreasing. When we get to the end of row four at the left underarm, we do whatever shaping we're supposed to do according to that part of the chart, then turn.

We continue in this way, first working whatever shaping is shown at the left armhole, then always decreasing at the left neck edge where each public-side row is one stitch shorter than the private-side row below it.

If we look back at the full chart, we see that the last decrease we do on the left neck for the size small is on row thirty-nine. Above row forty we see the dashed horizontal line, so we work the twelve stitches (stitches twenty-two through thirty-three inclusive) that remain on the left front to the same number of rows above the underarm bind-offs as we did on the back. When we've completed the final private-side row at the top of the left armhole, we turn to the public side and switch to the shoulder chart.

## The Right Front Neck

To complete the front, we start working with a new ball of yarn on row one of the right front. But since we completed the left front neck by itself, which end of the right front neck's row one do we start at? Do we start with stitch three near the center front, or do we start with stitch thirty-three at the right armhole?

If we were working all the way across row one from its right end to its left end (as we did when working the back), we would work stitch three long before stitch thirty-three. We do the same thing here. We must attach the new yarn starting at stitch three, then work from there at the right neck edge out to the right armhole edge.

Now, just as the left front was one stitch shorter as indicated by the vertical segments between stitches two and three on row one, we have the same vertical segment in the same place on the right front neck as well. Once the dead-center stitch is put on a holder, stitch two is supposed to disappear. The only way to make it disappear is to decrease it by working it with stitch three at the beginning of the row, right where we're starting with the new yarn. We then work to the end of row one and do whatever shaping the chart shows at the right armhole on row one.

After we turn, we do whatever shaping is required at the right armhole at the beginning of row two. As we approach the right neck edge at the end of row two, we see that there's a vertical segment in row two directly above the vertical segment in the same place in row one. That means we work up to and through that stitch, stitch two, then turn.

Since row three is one stitch shorter than row two at the right front neck, as indicated by the relative positions of the vertical segments in rows two and three, we do a decrease at the beginning of row three on the right neck. We work toward the right armhole, do whatever the armhole portion of the chart shows us, and turn. We work back toward the neck edge on row four, making sure we do what the chart shows at the beginning of row four at the right armhole.

We continue on in this manner, always decreasing one stitch at the beginning of the public-side rows at the right neck edge, since the chart shows that each public-side row is one stitch shorter at that spot than the private-side row below it, because of the relative positions of the vertical segments in the two rows. We have to be sure, though, that we continue to do all the shaping at the right armhole until all the underarm shaping is complete.

If we look back at the full chart, we see that the final right neck decrease is done at the beginning of row thirty-nine. The dashed horizontal line above row forty indicates that we work evenly on the twelve remaining stitches (stitches twenty-two through thirty-three inclusive) until we've worked the same number of total rows from the underarm bind-offs as we did on the back. At that point, we finish the last private-side row, turn, and switch to the shoulder chart.

The chart matches the written instructions to decrease one stitch at both front neck edges on every public-side row.

## Another Way to Show the Front Neck's Shaping

This version of the chart shows the front's V-neck as a blank area instead of having the entire area filled in with stitches and then showing the front neck shaping with additional boundary lines.


Using the same interpretation as with the filled-in chart, we see that at the neck edge of both the left and right front, row one is one stitch shorter, because there is no stitch symbol above the boxed number two on either side of stitch one. (We also see the downward arrow
for stitch one, telling us to put the dead-center stitch on a holder when we work the front's row one.)

If we look at the left neck (the right half of the chart), we see that each public-side row is one stitch shorter than the private-side row below it. That means we have to do a decrease at the end of each public-side left neck row, just like the filled-in chart shows with its front neck boundary segments.

Likewise, each public-side row on the right neck (the left half of the chart) is one stitch shorter there than the private-side row below it, so we do a decrease at the beginning of each public-side right neck row, the same as the filled-in chart shows.

As with the filled-in chart, we decrease one stitch at both front neck edges on each pub-lic-side row, just as the written instructions say.

## Working the Back from This Chart

Since the chart shows the front neck with a blank area, how would we work the back from it?

We would just pretend that the entire area was filled in, as we did when we worked the top of the back from the shoulder chart, which also had a blank area in the center.

## Back Neck Shaping

A garment's front neck shaping usually starts somewhere between the underarms and the shoulders, so its first shaping row will be close, relatively speaking, to the underarm bindoffs. ${ }^{3}$ Back necks, though, if they are shaped, tend to be much shorter, so their first shaping rows will be higher, closer to where the shoulder shaping begins.

Here's the shoulder shaping chart with back neck shaping added. Each size's back neck is shown as a dotted line in the proper color. How would we interpret this chart?


First of all, those of us who prefer a little more fabric on the backs of our necks can simply work all the way across each row, ignoring the dotted boundary and working only the outer edges of the shoulder shaping shown by the solid boundaries. (We still ignore the vertical solid segments around stitches twenty-two through twenty-four, because they represent

[^2]the front neck edges.) Ignoring the back neck shaping will take the back neck all the way to the top of the shoulders exactly as it did with the first shoulder chart.

In other words, just because back neck shaping is shown, we can simply ignore it if we so choose.

## Interpreting the Chart for the Size Small Vest Back

So how do we work the back neck shaping from this chart? Since we're working the back, then the right edge of the chart is the wearer's right shoulder and the left edge of the chart is the wearer's left shoulder.

We have the same situation here as we did with working the front neck: the two back shoulders have to be done separately, and we can either work them simultaneously with two balls of yarn, or we can finish the first shoulder and come back to work the second. This section assumes the latter.

As we begin row B1, we bind off the first three stitches because of the solid horizontal segment over stitches thirty-three through thirty-one, exactly the same way as before.

## A Horizontal Segment Above the Middle of a Row

The dotted horizontal segment over stitches twelve through twelve on row B1 indicates it's the highest row we'll have on the center of the back neck. (And we would have five actual stitches in the gap where the row numbers are shown.) Since the dotted segment is above the middle of the row, not the end of the row, we have two choices:

We can simply work all of the stitches, then put them to a stitch holder, since we'll want stitches in this spot when we add the neck ribbing in the finishing.
We can bind them off, as they're at the edge of the fabric. In the finishing, we would knit up stitches here to work the neck ribbing.

Whatever we decide, we work all the way to the end of row B1, turn, and bind off three at the beginning of row B 2 , because of the solid horizontal segment there.

## Finishing the Left Back Shoulder

When we look ahead on row B2 to stitch thirteen, we see a dotted vertical segment between it and stitch twelve. Following the previous rule, we turn after we work stitch thirteen.

We find ourselves in the same situation as when we worked the front. We have to either work both back shoulders simultaneously with two balls of yarn, or we complete first one shoulder, then work the other. As before, let's assume we will complete the left back shoulder after putting the right back shoulder stitches on a holder.


We see on the left shoulder's row B3 that there is a dotted horizontal segment over stitches thirteen through fifteen. Because it's more than one stitch wide, we bind off those three stitches. We continue along row B3, and when we get to the end, we follow the solid shoulder shaping boundary exactly as before, turning after working stitch thirty because of the vertical segment beyond it.

We go back and forth on each row between the solid line showing the outer edge of the shoulder and the dotted line showing the shaped back neck edge. Because there are horizontal segments three stitches wide at the beginning of each row in both the solid and dotted boundaries, we'll bind off three stitches at the beginning of each left back shoulder row.

## Finishing the Right Back Shoulder

Once we've completed the left back shoulder and neck shaping, we will join new yarn so we can finish the right back shoulder. Let's look at this section of the chart more closely so we can think about which end of row B2 we start at.


We worked all the way across row B1 after binding off the first three stitches. Now we have to join the yarn to finish the right shoulder, since row B1 is the last row in the center of the back neck. The question is, Where do we join the yarn?

Think of it this way. If we were not doing the back neck shaping, what row would we work next after we completed row B1, and where would we have started it? They're not trick questions, so the answers are "row B2" and "at the left shoulder."

The answers are the same in this situation. We'll join in while working row B2, starting from the end closest to the left shoulder. That means that we'll first work stitch thirteen, not stitch thirty. That in turn means that we have to be looking at the private side of the back as we join yarn to start the right shoulder at stitch thirteen, which is how we'd approach stitch thirteen if we were working row B2 all the way across from the edge of the left shoulder.

Once we've started row B2 by binding off stitches thirteen through fifteen, because there's a dotted horizontal line above them, we work the rest of the right shoulder and back neck shaping in the usual way. We again use the solid magenta line at the outer edge of the right shoulder and the dotted magenta line along the shaped neck edge. The chart shows that at the beginning of each row, we'll bind off three stitches.

## The As-Worked Shaped Back Neck

What will the entire back shoulder area look like? Here's the as-worked chart for the size small (except, of course, that the gap from stitch three to stitch three under row B1's label would be filled in with five actual stitches).


The shoulder shaping is the same as before, and the back neck has been lowered. We would work all the other sizes in exactly the same way.

## Add Back Neck Shaping to Any Garment

Suppose we like back neck shaping and want to add it to a project with a plain back neck that goes all the way up to the top of the shoulders.

If we chart the shoulder shaping, or if it's already charted in the instructions, we can simply add back neck shaping to it, making it as deep or shallow, wide or narrow as we like.

## Working the Front Shoulders from This Chart

Note that since this chart also shows the front shoulder shaping, the solid vertical segments in each color next to stitches twenty-two through twenty-four on both halves of the chart indicate where the front neck shaping ended, just as they did in the previous shoulder chart.

## Finishing the Size Small

Since there are solid magenta vertical segments between both pairs of stitches twenty-one and twenty-two, that means all the stitches from twenty-one on one half to twenty-one on the other half have been decreased away on the front.

In other words, we simply ignore the part of this chart that shows stitches we don't actually have on our needles as we finish the front left shoulder, exactly the same way as de scribed earlier. Once we finish the left front, we finish the right shoulder, just as before, by working back and forth inside the solid magenta boundaries in the left half of the chart.

## Finishing the Size XXL/XXXL

For the XXL/XXXL, we have only the stitches below or inside the solid cyan line on each half, so we ignore the part of the chart between both of the stitches numbered twenty-four, because they are not under the solid cyan vertical boundary segments (and, of course, they've all be decreased away during the front neck shaping). Instead, we continue to work the rows on stitches twenty-five through forty-one.

## Size Lines All the Same Color

If each piece's shaping is simple enough, then the boundary lines will probably all be black instead of being different colors. Such charts are more likely to have dropped shoulders instead of underarm curves like our vest, as the shaping is much easier to show.

The chart may or may not have labels near each size's boundaries to indicate which size is which. The following chart, for example, shows small, medium, large, and extra-large without any size labels. The entire outer edge is for the XL, with each inward line being the next smaller size. The shoulders in this design are bound off straight across on a single row (the row right below the size's topmost horizontal line), instead of being shaped by binding off just a few stitches at the beginning of each row. ${ }^{4}$

Note that the crew neck opening is the same width in all four sizes, with the only difference being in its depth, since the width indicated by the vertical segments between both pairs of stitches twenty-two and twenty-three go all the way up to each size's shoulder line.

While we work the back, we simply ignore the boundary lines showing the shaping for the front neck.

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## Reading a Multi-Size Shaping Chart: Review

For each size on a shaping chart, there may be two different ways the stitches and rows of each size are shown: boundary lines or blank areas. Some charts may use both methods at the same time. Both types of boundaries show us where to bind off (or put stitches to a holder), decrease, or work evenly.

If the chart uses either boundary lines or blank areas to show the front neck shaping, then as we're working the back, we mentally-and with yarn-either ignore the front neck boundaries or fill in the missing stitches, unless we really, truly want the back neck to be exactly the same as the front neck.

## Boundary Lines

A boundary line bends back and forth along the stitches and rows at the edge of its size. To interpret each boundary segment correctly, we use the following rules.

At the beginning of the row, if there is a horizontal segment above two or more stitches, we bind off the number of stitches below the segment, then continue along the row.

At the beginning of the row, if a vertical segment shows that the row is one stitch shorter than the previous row at that spot because there's no vertical segment below it in the previous row (with a horizontal segment below the stitch that's now technically outside the size's boundary line), we do a single decrease, then continue along the row.
(1) At the beginning of the row, if a vertical segment is "behind" the first stitch and on
top of a vertical segment at the same spot in the previous row, we neither bind off nor decrease. We work the beginning of the row evenly from the very first stitch on our needles, neither binding off nor decreasing.
(1) As we approach the end of the row, we work up to and including the stitch before the vertical segment, then turn the work.

在. As we approach the end of the row, if the vertical segment shows the end of the row as one stitch shorter than the row below it, we decrease at the end of the row. (This situation did not occur in the vest from chapter 410.)
If there is a horizontal segment over the middle part of the row, instead of at the beginning or end of the row, that row is the last one worked at that spot. We can either put the stitches to a holder or we can bind off there, depending on our preference and/or what will happen to those stitches in a later step.

## Blank Areas

Sometimes stitches are omitted, especially to show shoulder and front neck shaping. If shaping is indicated by blank areas in the chart instead of with boundary lines, then we still see where each row is getting shorter or staying the same.

If two or more stitches at the beginning of the row do not have stitches above them in the next row, we bind those stitches off.
If the beginning of the row is exactly on top of the end of the previous row, we neither bind off nor decrease; we just work evenly from the beginning of the row.
If the end of the row is exactly on top of the end of the previous row, we work all the way to the end of the row, without doing any decrease, then turn.

If the beginning or ending of the row is one stitch shorter than the row below it, we do an ordinary decrease at that spot.
A A blank area above the middle of the row is the last row at that location. We can either bind off those stitches or put them to a holder, again depending on our preference and/or what will happen to those stitches later.

## Switching to Short Rows

If shoulders are shaped with several rows that begin with bound-off stitches, we can switch the shaping to short rows, as described in chapter 432.

## Multi-Size Chart Tips

The tips in chapter 125 will also work well for multi-size shaping charts as long as we pay attention to the vertical boundary segments marking the first and last stitches of each row.

One additional tip for multi-size charts is to photocopy the chart, then cut along our size's boundary lines to eliminate the distraction of stitches and rows for the larger sizes.


[^0]:    ${ }^{1}$ Even if you have a color printer, the colored boundaries will be easier to see in the electronic PDF if you zoom in.

[^1]:    ${ }^{2}$ I suppose we could bind off one at the beginning of a row that's one stitch shorter than the row below it, instead of doing a decrease.

[^2]:    ${ }^{3}$ One exception is a cardigan with a very deep V-neck, which may begin its neck shaping just a few rows above the bottom edge.

[^3]:    ${ }^{4}$ We can of course use Kitchener stitch/weaving/grafting to join the front and back shoulders, and we can bind off or put to a holder the center stitches of the front and back neck, depending on our preference or what will be done with those stitches in the finishing.

