

Chapter 160

DECREASES

Decreases let us shape all of the following projects:

- ☉ set-in sleeve caps
- ☉ raglan sleeves
- ☉ the tops of hats started at the brim
- ☉ fingertips for mittens started at the wrist
- ☉ fingers for gloves started at the wrist
- ☉ toes of top-down socks
- ☉ square items worked from corner to corner
- ☉ triangular shawls started on the long edge and worked to a point

Charts can be used in these situations too.

Types of Decreases

Single Decreases

You might wonder what a *single decrease* is. You've maybe never heard of *single* decreases. Single decreases are the most common kind of decreases, but we usually just refer to them as *decreases*. They turn two stitches into one, so they decrease a single stitch.

There are two kinds of single decreases, left-leaning and right-leaning.¹

Right-Leaning Decreases

The most commonly used right-leaning decrease is good old K2tog. The left stitch of the pair covers up and eats the right stitch, making the resulting single stitch lean to the right.

Left-Leaning Decreases

There are lots of ways to do left-leaning decreases, and some look better than others.

The oldest one is probably slip 1–K1–pass the slipped stitch over, often abbreviated SKP (think “slip–knit–pass”).²

A K2tog through the back loops (K2tog tbl) will also lean left while twisting the stitches.

Some knitters prefer an SSK to pair with K2tog. To do this decrease, slip one stitch

¹ Sometimes the fact that single decreases lean one direction or the other is ignored.

² Maggie Righetti describes a right-leaning version of an SKP on page 93 of *Knitting in Plain English* (paperback edition, 1986).

knitwise, slip a second stitch knitwise, put the left needle's tip into the fronts of these two stitches from the left, then knit them together from this position (think “slip–slip–knit”). Note that you must not slip the two stitches at the same time, as though you were starting a K2tog. The stitches have to be slipped individually. Some knitters get a better result by slipping the second stitch purlwise instead of knitwise. Try both yourself to see which one works better for you.

In these decreases, the right stitch of the pair covers up and eats the left stitch, so they are all left-leaning decreases.

Does the Direction Really Matter?

Why should we care which way a decrease leans? Imagine a sleeve cap, a V-neck, and raglan decrease lines. If we use K2togs for *all* the decreases, the final appearance will not be symmetric. We need instead to use a right-leaning decrease at one edge and a left-leaning decrease on the other edge.

Double Decreases

Double decreases get rid of two stitches at the same time, turning three stitches into one; hence *double*. There are many ways to do a double decrease, and which one we pick depends on the appearance we want and/or the ease of execution.

In all cases, the middle stitch of the three stitches is where the double decrease will wind up, so if we want to make a strictly vertical line, then we have to make sure the central stitch of the three is always above the stitch that resulted when we made the previous double decrease.

The easiest double decrease is simply K3tog. If we knit tightly, it won't be any fun shoving the needle in through three stitches at once. But we'll be brilliant if we use a size 0 to draw the yarn through, then put the new stitch on the normal-sized right-hand needle. It leans to the right like its smaller cousin.

There's K3tog tbl, just like K2tog tbl but with one more stitch. Another is slip 1–K2tog–pass the slipped stitch over, sometimes abbreviated SK2P. Both of these will lean to the left.

If a straight-up resulting stitch would be preferable (that is, one that leans neither to the right nor the left), then do an S2KP: slip 2 together knitwise–knit 1–pass the two slipped stitches over. Note that this time you **do** slip the two stitches together at the same time as though you were about to work a K2tog! The resulting stitch stands straight up, the center stitch of the three having had the stitch on either side tucked in behind it.

Higher Decreases

Some patterns will have you decrease three, four, or even more stitches at one time. These multiple-stitch decreases can also be represented in a chart.

Single Decreases in Charts

Perhaps you're already thinking about the problems of charting a K2tog. Since a K2tog turns two stitches into one, how do we show that in a chart? Do we use a symbol that's two stitches wide or one that's just one stitch wide?

How do we solve this problem? **We cheat!** Remember in chapter 110 we said that each symbol represents one stitch, but the footnote said that that was a lie? Then when we were talking about cables and twists, we said each symbol is as wide as the number of stitches it uses, but that that was still a lie?

Here's the truth:

Each knitting symbol represents a single knitting operation.

A *knitting operation* is anything that is worked as a unit in itself. A single knit stitch, a single purl stitch, a yarnover (as we'll see in the next chapter), a cable, a twist, a K2tog, and an SSK all represent a single *knitting operation* because all of them are worked as self-contained units.

So it may be more precise to say each symbol in a chart represents the outcome **after we complete a knitting operation**.³ Working a K2tog leaves a single stitch; that single stitch is represented by a one-stitch-wide symbol.

Even for just knitting and purling, the symbol is really showing the **result** of working one knit stitch or one purl stitch.

Single-Decrease Symbols

Here are the symbols for single decreases, along with the keys we use to put them into our charts:

/	<input checked="" type="checkbox"/>	K2tog (or other right-leaning decrease)
\	<input checked="" type="checkbox"/>	SSK, SKP, or K2tog tbl (or other left-leaning decrease)

³ This is still a lie. No, just kidding, this is finally the complete truth about the symbols on knitting charts.

The decreases' diagonal lines show the direction the resulting decrease will slant when looking at *the public side of stockinette stitch*.⁴

Since a K2tog leans to the right, it's shown as a right-slanting line. Likewise, when made on the public side, an SSK, an SKP, and a K2tog tbl all lean to the left, so they are all represented by a left-slanting line.

Single-Decrease Sampler: Mitten Fingertip

Let's work a mitten fingertip, doing the shaping two different ways.

Ordinarily, mittens are worked in the round, and fingertip shaping often consists of decrease rounds alternating with plain rounds worked evenly (that is, simply working every stitch without decreasing). So we work a decrease round by making decreases on both the palm side and on the back-of-hand side. Then we work a plain round by simply working around on both the palm and back of hand. These two rounds would be repeated as needed.

To avoid the additional complexity of trying to show a chart for an object worked in the round, we'll think of—and chart—the decrease rounds as public-side rows and the plain rounds as private-side rows.

Suppose the mitten is twenty stitches wide, and we have to decrease to ten stitches at the fingertips by decreasing one stitch at each end every other row. Let's start the chart with the last row on the palm side at the tip of the pinkie finger. We'll think of it as “fingertip foundation row A” to make future discussion easier. Since we're treating rows without decreases as private-side rows, the row number goes at the left.

a

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Because it looks best if our decreases mirror each other, we have to do a right-leaning decrease at one end of the row and a left-leaning decrease at the other end of the row.

Which Decrease Goes Where?

Let's make a command decision to do a left-leaning SSK at the beginning of the public-side rows and the right-leaning K2tog at the end of those rows.

The Decreases on the First Row

Since this is the first public-side row, the row number goes at the right. We start with the SSK, which leans to the left.

☒ 1

⁴ We'll cover the effects of purling decreases made on both the public and private sides later in the chapter.

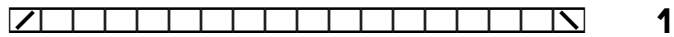
That symbol, one stitch wide, represents an SSK, which turns two stitches into one stitch. That means we now have only nineteen stitches left in the row. When we get to the end of row, we'll do a right-leaning K2tog, which also turns two stitches into one stitch.



The Rest of the First Row

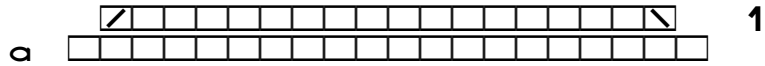
The question now is, how many stitches will there be between the SSK and the K2tog? We started with twenty, and the SSK eliminated one stitch, leaving nineteen, and the K2tog will also eliminate one stitch, leaving eighteen total when the row is complete.

Since the SSK and the K2tog both result in a single stitch, the eighteen stitches of the completed row one will have sixteen knit stitches between the stitches that result from the two decreases. So the chart for row one will be, from right to left since it's a public-side row, the SSK, sixteen knit stitches, and the K2tog.



Combining the First Shaping Row with the Last Palm-Side Row

Let's combine fingertip foundation row A with this first shaping row, just so we can see how the two rows look together.



The fact that there are two fewer one-stitch-wide symbols on row one compared to foundation row A is showing us that the stitch count has gone down by two. Since this chart is done on plain text lines, I simply typed a space above the first and last knit stitches of foundation row A.

The Plain Row

The shaping directions said that the shaping occurs on every other row. That means row two will simply work all eighteen stitches that remain. Since it's private-side row, the row number goes at the left.



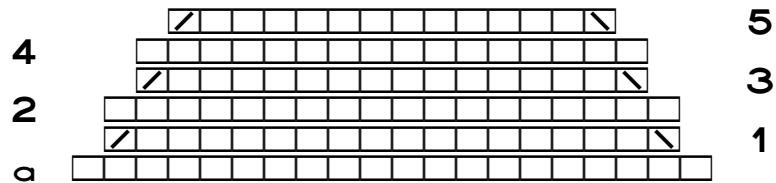
The Rest of the Shaping

On row three, we again make the decreases at the beginning and end of the row. Since those two decreases remove a total of two stitches, we need to show row three as being two

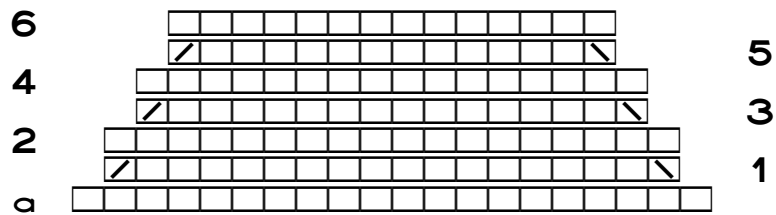
stitches shorter than row two. Remember that we keep the left-leaning decrease at the beginning of the row and the right-leaning decrease at the end of the row.



Row four just works each stitch, and on row five, we decrease at each end again.



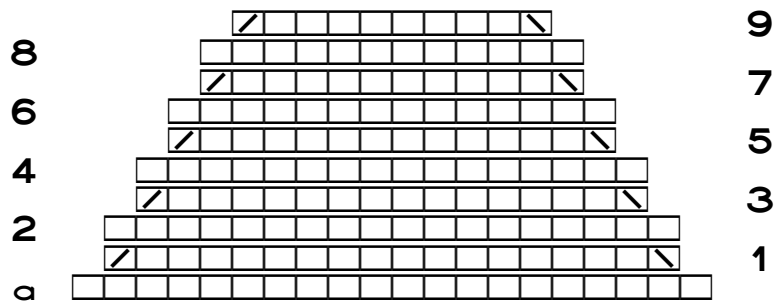
Row six just works each stitch.



At this point, how many stitches are left? Counting the stitches on row six, we have decreased to fourteen stitches. We are supposed to decrease to ten, so we have a couple more decrease rows to add, with plain rows in between.

The Final Shaping Chart

Here's the final shaping chart, where row nine leaves us with the ten stitches we're supposed to have after the shaping is complete.⁵



⁵ At this point, we would close the top of the mitten with a three-needle bind off, by weaving the stitches of the palm and back of hand together, or by any other technique we like.

Here’s what it looks like knitted:



Typing Up the Chart

I normally make charts from the top table row to the bottom table row, reading through the written-out instructions from the last line to the first, since I can just keep hitting the Tab key to both move from cell to cell and to add a new row when in the last cell of the bottom table row.

But decrease (and increase) charts are confusing enough, so I tend to type them in the order they’re worked. I use my basic method of creating a table with three columns, the outer columns for the row numbers and the center column for the stitches.

Starting with the first decrease row, I type the stitch symbols in the middle column, then add the row number. Then I go *up* in the table, to add the row worked even (without any decreases).

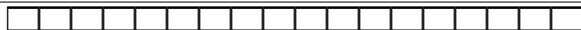



Here are the “fingertip foundation row A” and the first two rows:

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	/																	1
a																		

Now I add **two** blank rows to the top of the table,

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	/																	1
a																		


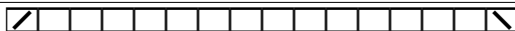



then copy the first two pattern rows and paste them in.

2		
	/  \	1
2		
	/  \	1
a		

In the section “Duplicating Rows If Needed” in chapter 120, I needed to add only one blank row at the *bottom* of the table, no matter how many rows I was going to paste.

But here, if I don’t have as many blank rows at the *top* of the table as I’m about to paste in, I’ll overwrite whatever’s already in the table. If I wanted to paste in ten rows at the top of a table, I’d have to add ten blank rows. If I add only one blank row, then when I paste the ten rows, whatever is already in table rows two through ten would be replaced with the rows I pasted.

Having pasted in rows one and two, I fix the row numbers and delete the symbols for the stitches that will be decreased away.

4		
	/  \	3
2		
	/  \	1
a		

Since the SSK and K2tog decrease a total of two stitches, I simply deleted two knit symbols between the decrease symbols on row three, then deleted those same knits on row four as well, since row four just works each stitch.

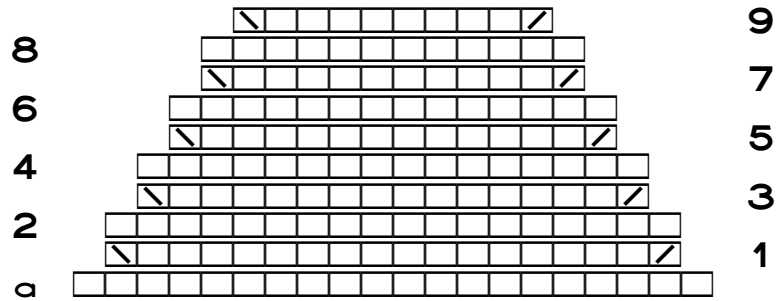
I construct the rest of the chart the same way, adding blank rows, copying and pasting, then fixing row numbers and deleting stitch symbols.

I could also begin by making the table with as many rows as I need.

Reverse the Positions of K2tog and SSK

What happens if we do the decreases with the K2tog at the beginning and the SSK at the end?

The chart will change to



Here's a photograph of the mitten tip decreased this way, just for comparison (this chart and sampler happen to be the back-of-hand side of the same mitten fingertip).



Surprise! The Charts Don't Match the Knitting

Let's look at the charts and the photos of the corresponding work all in one place.

K2tog	SSK

We've now hit a situation where the charts don't actually look like the resulting work. One would think, from looking at both charts, that putting the decreases on the edge that matches the decrease's slant, as in the sample on the left, would result in the least visible decreases, while putting the decreases the other way, so that the decreases point at the edge they're making, would make the decreases very obtrusive.

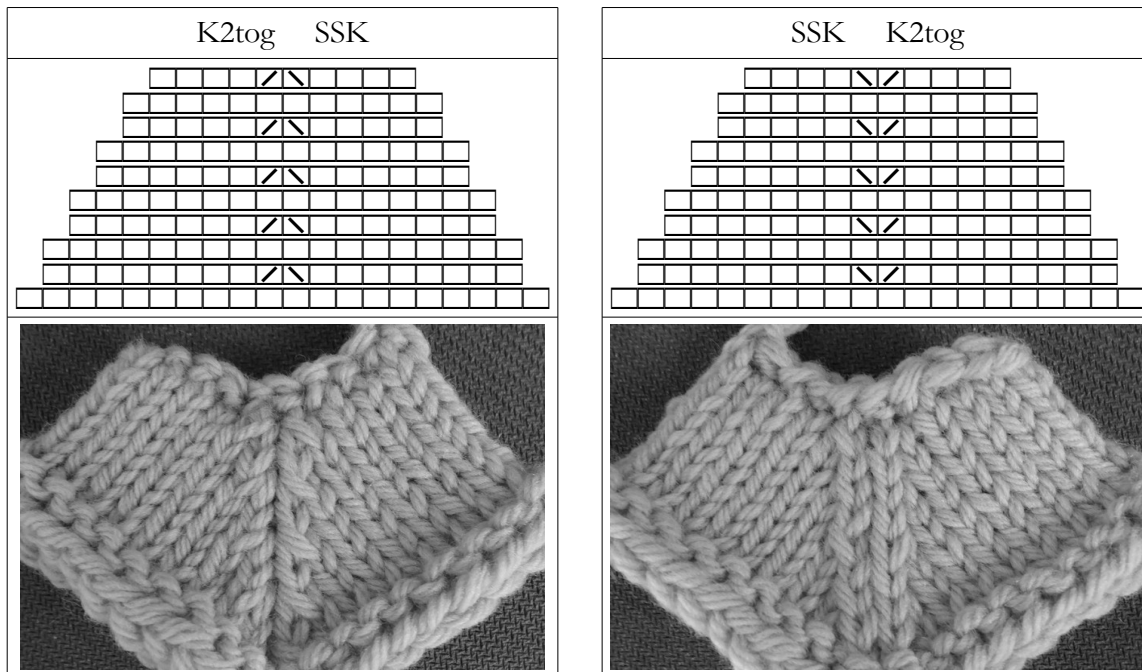
What we see, in fact, is just the opposite. If the decreases point at the edge they're next to, they almost disappear. It's when they run parallel to their edges that they seem to almost jump up and down, shouting, "Here I am!"

Imagine taking these two very different appearances to anywhere you need to do matched shaping, like underarm decreases on a garment's front, back, and sleeves as well as the sleeve caps for set-in sleeves, toes on top-down socks, and sweaters with V-necks or raglan sleeves.

If the slant of the decreases is *pointing at* the diagonal lines the decreases are forming, they will not be very noticeable. If the decreases slant *in the same direction* as those diagonal lines, they will be very noticeable indeed.

One Other Option

What if we did the decreases in the center of the work, not at the edges of the piece, like the next two charts show?



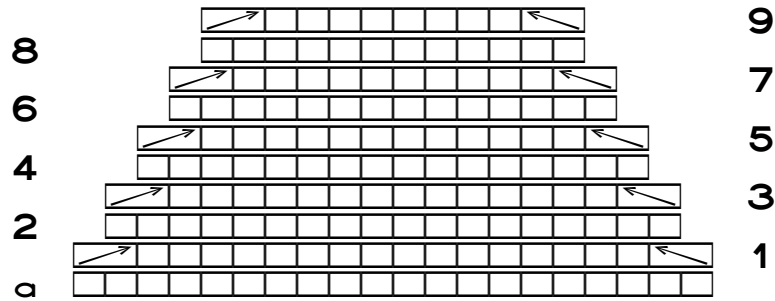
Because directional decreases change the slant of the fabric, and because this slanting is much more obvious when the decreases are not near the fabric’s edge, these paired decreases worked in the center force the outer portions of the project to tilt. The novelty is interesting, but they might be awkward to wear as mittens. In other projects, the resulting appearance might be just what we want.

Using a Two-Stitch-Wide Symbol for Single Decreases

If it would make more sense to you to show the decrease with a symbol that is two stitches wide, there are symbols in the knitting font that you can choose with your word processor’s particular way to Insert | Symbol or Insert | Special Character. Any of the following symbols might be used in this way:



If you choose to use a two-stitch-wide symbol, your chart might look like this:



If this way of charting makes sense to you, then use it! The chart symbols are supposed to help us work more quickly, more easily, and with fewer errors, so we each need to use whichever symbols we want in whatever way works best for us.

Double Decreases in Charts

Double decreases can sometimes be substituted in places where we might use a pair of single decreases, as on the tops of hats or along raglan lines.

So if we’re making a sweater with raglan sleeves, we might do a double decrease at each raglan point every other round, instead of doing a matched pair of single decreases in those same four places.

Here are symbols for common double decreases.

-		K3tog
_		SSSK (just like an SSK but worked on three stitches)
=		S2KP (slip 2 tog K-wise, K1, pass 2 slipped stitches over)

There are additional symbols available if we prefer one with a different look, but the ones shown here are the easiest to type.⁶ (We have to use our word processor's Insert | Symbol or Insert | Special Character to find other one-stitch-wide symbols as well as those that are three stitches wide.)

Higher Decreases

When we are doing a typical SSK/SKP or K2tog, turning two stitches into one, it's quite common to use a symbol that's the width of the single stitch that results. When we decrease more than two stitches in a spot, there are, like the alternatives shown for using two-stitch-wide decrease symbols for single decreases, two ways to represent decreases that eliminate more than two stitches.

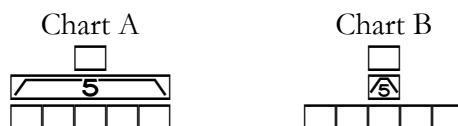
On the one hand, we can use a symbol that's as wide as the number of stitches we start with. So if we need a decrease that turns five stitches into one stitch, we could use a symbol that's five stitches wide.

On the other hand, we can indicate five stitches being decreased to one stitch by showing the result of the decrease, with a symbol that's only one stitch wide.

Either way is fine. We might tend to always show such decreases in one way, but in a particular project, it may make more sense to show a multiple decrease the other way.

Sample Charts with Multiple-Stitch Decreases

Here are sample charts with the two alternatives for showing decreases that turn five stitches into one stitch:



Mini-chart A shows the decrease using a symbol that is the width of the five stitches

⁶ You may have trouble trying to type an equals sign. When an equals sign is the first character in a table cell, word processors may switch to “formula mode,” expecting that what comes next is a built-in math function, an equation, or a range of table cells. If that happens, click the X button in the formula toolbar, type any other knitting symbol in the cell, type the equals sign and the rest of the stitch symbols, then delete the first symbol.

that we start with. In mini-chart B, the decrease is shown as the one stitch that results when the decrease is completed.

Purling Decreases

There are purling decreases equivalent to their similarly-named knitting counterparts. We'll just look at the equivalents of single decreases.

Purl Two Together: P2tog

Purling two together is as easy as knitting two together. We put the right needle into the next two stitches on the left needle, and we pretend we're in just one stitch as we purl.

Slip 1–Purl 1–Pass Slipped Stitch Over: SPP

The purling equivalent of an SKP would be an SPP: slip 1–purl 1–pass slipped stitch over. This decrease is also easy to execute.

Slip–Slip–Purl: SSP

The purling equivalent of SSK, an SSP, can be an absolute bitch until we've done a few of them.⁷

We start the same way as for an SSK, by slipping one stitch knitwise, then slipping a second stitch knitwise (and having to do them individually, not both at once, just as for the SSK).

Now we have to do an extra step that's not needed in an SSK. We must put the two stitches back on the left needle but without undoing the knitwise slipping we did in the first place.⁸ This is not difficult either.

The final step is the tricky one the first few times we do it. We have to now put the right needle into the **backs** of the two stitches, but we have to go into the **second** stitch **first**. To do so, we have to swing the right needle around and behind the left needle to point in more or less the same direction as the left needle. We put the needle through the back of the second stitch, then through the back of the first stitch. We wrap the yarn around the right needle in the normal way and pull through the two stitches to finish the decrease.

There is a very clear video at, among other places on the Internet,

⁷ I apologize for the word, but really, no other word applies. After we do two or three (or four or five), it does get easier.

⁸ For both the SSK and the SSP, slipping the two stitches knitwise **one at a time** means that we are putting the right legs of the two stitches behind the needle, instead of keeping them in front of the needle where a stitch's right leg normally lives. So when we move the two slipped stitches back to the left needle, we have to slip them so that the right legs stay to the back instead of returning to the front of the needle.

www.youtube.com/watch?v=1TCoak_KNDY

where the first character after the equals sign is a lowercase L, not the digit one.

Surprise!

And believe it or not, if you're really having trouble making an SSP (I have to be exceedingly careful so that I don't split either stitch as I try to insert the needle into the backs of the two stitches), you can actually work an SSK on the private side instead. How?

1. Work to the point of the SSP.
2. Slip the next two stitches purlwise to the other needle.
3. Turn the work.
4. Work an SSK in the normal way. When you reach the point of wrapping the yarn around the needle, the yarn will be coming from the "wrong" place. It feels a bit awkward, but just carry on.
5. Turn the work.
6. Slip the stitch purlwise to the other needle, and continue.

When you get back to that stitch, you'll have to work it in the trailing leg so that it won't be twisted.

Sometimes We Must Do Purling Decreases

When would you need to make decreases in purl? Two situations come to mind immediately.

Purling Decreases on the Public Side

First, imagine an Aran sweater. In between all the cable and twist patterns, there are stretches of reverse stockinette. It might be only one stitch of purl, or we might have three or more purl stitches between patterns (if, for instance, we needed more width but didn't want to add more patterns). We'll need to do decreases in the reverse-stockinette portions for both sleeve and neck shaping.

In this situation, the columns of reverse stockinette between the patterns **are** the public side of those portions of the work.

Purling Decreases on the Private Side

Second, suppose we come across a pattern that requires us to decrease every third row. If we're working in the round, no problem. We do a decrease round, work two rounds even, do a decrease round, work two rounds even, and so on.

But what if we're working flat, back and forth, to make stockinette? Say the first de-

crease row is a public-side row. Then we work two rows even, the first being private side and the second being public side. Now we need to do a decrease row, and we're on the private side. That means we have to do purling decreases. And of course, the exact purling decrease we do will show up quite clearly on the public side of the work. If it leans the wrong way, it'll stand out big-time when we turn the work around.

In this case, the reverse-stockinette side remains the private side of the work.

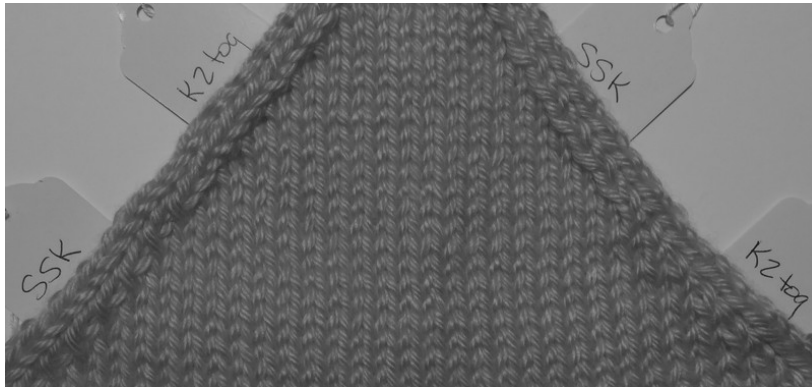
Figuring Out Which Purling Decrease to Do When

There was only one way to understand how purling decreases looked depending on whether the reverse-stockinette side was the public side or private side of the work: I had to make a sampler. (I know, I know, almost as bad as swatching!)

First Things First

Long ago I had made a sampler showing the effect of K2tog...SSK versus SSK...K2tog for shaping a set-in sleeve cap or raglan sleeves so that I would be able to choose which version I liked better. Working private-side rows even, I worked a chart like the following, making the decreases two stitches in from each end (so I decreased using the third and fourth stitches from the edges):

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□ □ / □ □ □ □ □ \ □ □ □ □	21
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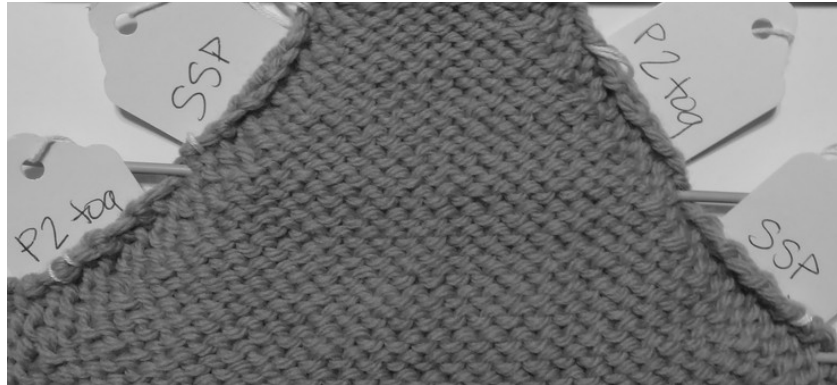


To see the effect of purling decreases, I made the equivalent sampler but in reverse stockinette with the following chart, again working the decreases in the third and fourth stitches from each edge:

••~••••/•••	23
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••~••~••••/••••/••••/•••	19
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This chart shows only the public-side rows; the private-side rows would be worked as all knit in the flat to create reverse stockinette. The symbol key includes the characters we need to type to make this chart (remember, the reverse stockinette is the public side in this case):

p	•	Purl
`	/	P2tog
~	~	SSP



The public side of reverse stockinette showed a slight irregularity on the third stitch in from each edge. It was clear something had happened there, but it wasn't clear exactly which decrease had been done where. The only way I could tell there were any decreases at all was that the smooth flow of purl bumps simply wasn't smooth (oh, and the piece got narrower).

The Result

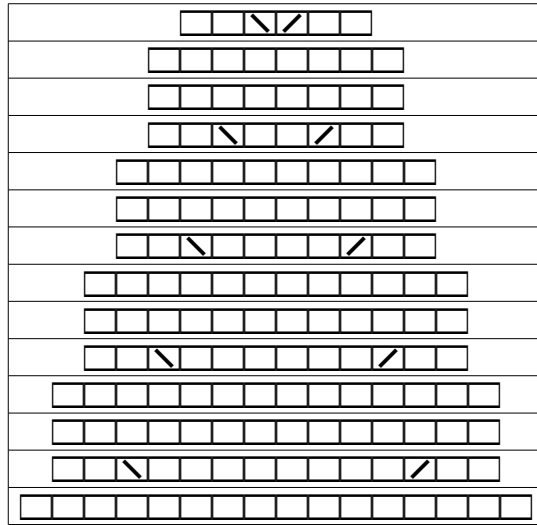
The big surprise was when I turned it over. ***It looked exactly the same as the stockinette decrease sampler I'd made years before.*** In fact, I so distrusted this result that I reworked the swatch completely just to make sure I hadn't swapped which decrease I did where.



Where I had done a P2tog on the reverse-stockinette public side, it looked like I'd done a K2tog on the public side of stockinette. Same thing with the public-side SSP: it turned into an SSK on the reverse-stockinette private side.

What does that mean? That means if you come across a pattern that makes you do private-side decreases when making stockinette stitch in flat, back-and-forth rows, you do the same style of decrease on each end of both the public- and private-side rows.

So if you do a K2tog at the beginning of the public-side rows and an SSK at the end of those rows, then when you have to do a decrease purl row, you'll do an SSP at the beginning of the row (which is the same edge of the work where you'd done the SSK) and a P2tog at the end of the row (because that was the same edge you'd done the K2tog). Here's a sample chart:



Here's the corresponding symbol key, similar to the earlier one, but with additional information for working on the private side:

□	K on RS, P on WS
/	K2tog on RS, P2tog on WS
\	SSK on RS, SSP on WS

Here's what the sampler looks like. Pop quiz! The chart did not have row numbers, so which decreases were done on the public side and which on the private side? It's clear that the decreases were worked every third row, but was the first decrease row worked as K2tog/SSK or as P2tog/SSP? Hard to tell, isn't it?



The Bottom Line on Purling Decreases

If we need to make purling decreases in an area of reverse stockinette (meaning the reverse stockinette is the public side of the work), it really doesn't matter whether we do a P2tog or an SSP/SPP. Well, as far as appearance goes, it doesn't matter. But a P2tog is way easier to execute than an SSP, so we can save ourselves some aggravation.⁹

If we have to do matched decreases on both the public and private sides of stockinette, we do a "2tog" decrease at one spot on both the public and private sides, and we also do an "SS" decrease at the other spot on both sides. Sometimes I hang "K2tog" and "SSK" markers over my needle at the appropriate places so that I don't have to keep looking at the directions. When I need to work those decreases on the private side in purl, the markers still mean the same thing. Yippee!

⁹ OK, there are some of us who, when putting on a sweater with shaping in the reverse-stockinette portions, would be bothered by purl decreases that lean the wrong way on the private side. If you want to be official, go for it. Do those SSPs where needed so even the private side is perfect!