

Appendix F



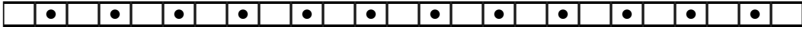

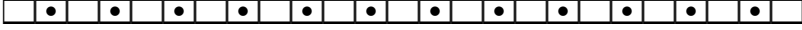
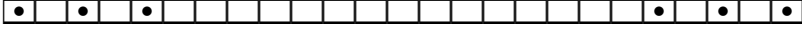



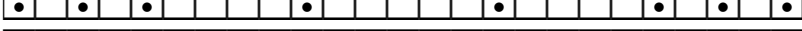
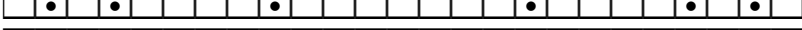
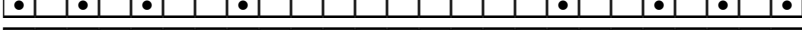
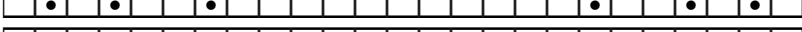
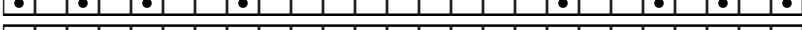
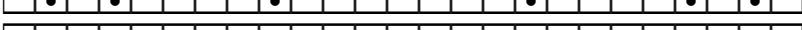
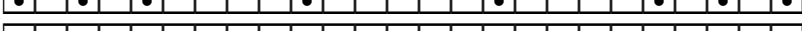
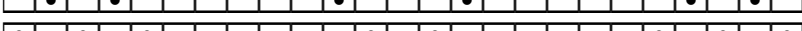
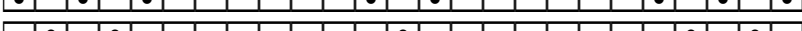
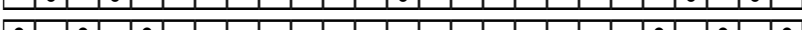
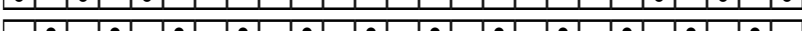
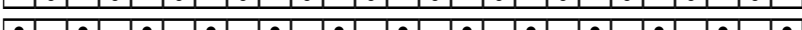
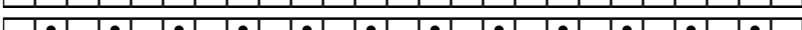

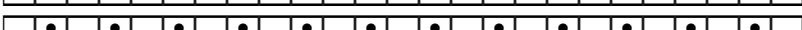
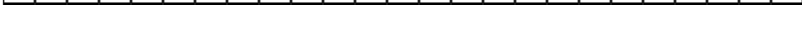
BETTER WRITTEN-OUT INSTRUCTIONS

If we want to work from written-out instructions instead of a chart, it's very easy to translate a chart to that form. It's also easy to write those instructions in a way that makes it clear which parts of the instructions are for any possible borders that may be present and which parts are for a motif or stitch pattern.

We'll look at charts of both types, because we conveniently already have projects of both types in parts one and two.

Charts with a Motif

Here's the full chart for part one's purl diamond project.

		25
24		
		23
22		
		21
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		19
18		
		17
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		15
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		13
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		11
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		9
8		
		7
6		
		5
4		
		3
2		
		1

We start at the lower right, the same place where we would begin knitting, because the first row is a public-side row. If the project chart had a single private-side foundation row, like we had for both Braid and Wavy Cable in part one's Aran sampler, then we would start at the lower left, since that's where the private-side row starts.

Casting On

Because the first row consists of just knits and purls, there is one stitch cast on for each symbol on the first row, so we cast on twenty-five stitches.

CO 25.

Different knitting operations will need different numbers of stitches cast on.

- ☞ For a decrease on row one, we'd have to cast on however many stitches it started with. So a K2tog or an SSK would need two stitches cast on, and any kind of double decrease would need three stitches cast on.
- ☞ For an increase on row one, we'd have to cast on a stitch—or not—depending on which increase it was. For a plain yarnover or an increase made in the running thread, we don't cast on a stitch, as these two increases are made “out of thin air.” For a KFB, we'd cast on one. Since a lifted increase is made in a stitch in the previous row, there shouldn't be a lifted increase on row one if there's no foundation row.
- ☞ A cable crossed on row one would need its width in stitches cast on.
- ☞ Other knitting operations would need to have cast on however many stitches the operation works on (not how many it produces when it's completed).

The Bottom Border

Since the bottom border is seed stitch, we only need to say which stitch we start the first row with. For the rest of the row, we alternate knits and purls, then in subsequent rows we simply knit the purls and purl the knits.

Rows 1–5: *seed st border* (start row 1 with K1).

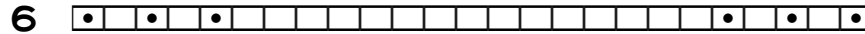
If we write the instructions more generally like this, instead of in actual numbers of knits and purls, then someone using our instructions will have an easier time changing the border, since we've specified that the bottom border is five rows tall.

The Motif Rows

We will do future knitters (including ourselves five years—or five months—from now) a big favor by being more explicit about which stitches form which part of the project.

Row Six

Row six, a private-side row, starts the motif.



Since it's a private-side row, we have to read the chart row from left to right, and we have to switch knits to purls, and vice versa. These changes follow the rules of reversal we learned about in part one.

We've already established explicitly a seed stitch bottom border, so now we'll specify that the first five stitches of row six form the seed stitch left border, so the knitter will know to purl the knits and knit the purls.

Row 6 (WS): 5 seed sts

Specifying the border stitches explicitly will again help someone who wants to use the motif but also wants to change or eliminate the designed border, since it's clear that it's five stitches wide.

The next fifteen stitches show on the chart as knits, but since we're looking at a private-side row, we have to flip knit to purl in the written-out instructions.

Row 6 (WS): 5 seed sts, {P15 (motif)}

Using curly braces as well as the descriptive word again signals what this part of the instruction line means.

The row ends with the right edge's border, so we again specify how many stitches it has.

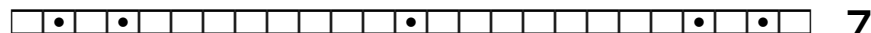
Row 6 (WS): 5 seed sts, {P15 (motif)}, 5 seed sts.

It's a good idea to double-check for typos by at least adding up the number of stitches shown in the instructions. Since five plus fifteen plus five equals twenty-five, we know we have been numerically accurate.

Now that we've shown what each part of each instruction line is, we can be a bit less verbose with the remaining lines, relying instead on the formatting we've established.

Row Seven

Row seven is a public-side row, so we read the chart symbols from right to left.



We'll again help the knitter by saying that the first five stitches are to be kept in seed stitch for the right border.

Row 7: 5 *seed sts*

The motif stitches are all knit, except the center stitch, which is purled.

Row 7: 5 *seed sts*, {K7, P1, K7}

Since row five introduced the curly braces enclosing the motif instructions, the central K7– P1–K7 is also set apart in braces to indicate they are the row’s motif stitches.

The row instructions finish with the left border.

Row 7: 5 *seed sts*, {K7, P1, K7}, 5 *seed sts*.

Let’s do a minimum check to make sure we haven’t introduced any typos. We have ten stitches for the left and right borders, and fifteen total stitches in the motif portion. That adds up to twenty-five total stitches, which is correct.

Since the motif is symmetric about its vertical center (i.e., the right half is a mirror-image of the left half), we should have the same number of stitches on both sides of the motif’s central purl, which we do.

Alternate Punctuation

If curly braces seem too unusual, then we could separate the three portions of the motif rows with, say, semicolons.

Row 6: 5 *seed sts*; P15 (motif); 5 *seed sts*.

Row 7: 5 *seed sts*; K7, P1, K7; 5 *seed sts*.

The semicolons may be a bit harder to see, or at least to distinguish from the commas.

We could also use angle brackets.

Row 6: 5 *seed sts*, <P15 (motif)>, 5 *seed sts*.

Row 7: 5 *seed sts*, <K7, P1, K7>, 5 *seed sts*.

Since parentheses, (and), and square brackets, [and], are so often used to show groupings for repeated stitch sequences, it’s probably better to avoid these pairs of punctuation marks in this usage.

Any kind of formatting will be fine as long as it’s consistent and shows which stitches are for what.

The Remaining Rows

We continue reading each row in the proper direction, translating the symbols to the typical abbreviations, and following the formatting conventions set up in the first few lines.

CO 25.

Rows 1–5: *seed st border* (start row 1 with K1).

Row 6 (WS): 5 *seed sts*, {P15 (motif)}, 5 *seed sts*.

Row 7: 5 *seed sts*, {K7, P1, K7}, 5 *seed sts*.

Row 8: 5 *seed sts*, {P6, K1, P1, K1, P6}, 5 *seed sts*.

Row 9: 5 *seed sts*, {K5, P1, K3, P1, K5}, 5 *seed sts*.

Row 10: 5 *seed sts*, {P4, K1, P5, K1, P4}, 5 *seed sts*.

Row 11: 5 *seed sts*, {K3, P1, K7, P1, K3}, 5 *seed sts*.

Row 12: 5 *seed sts*, {P2, K1, P9, K1, P2}, 5 *seed sts*.

Row 13: 5 *seed sts*, {K1, P1, K11, P1, K1}, 5 *seed sts*.

Rows 14–25: Work rows 12–1 in reverse order.

BO.

Comparing the Two Versions of Instructions

Let's put both versions of the instructions next to each other. In the table, both columns are the same width, and both versions of the instructions are the same font size.

Original Instructions	Better Instructions
CO 25. Row 1 (RS): * K1, P1 *, rpt from * to * across, K1. Rows 2 to 5: As row 1. Row 6: (K1, P1) twice, K1, P15, (K1, P1) twice, K1. Row 7: (K1, P1) twice, K8, P1, K8, (P1, K1) twice. Row 8: (K1, P1) twice, K1, P6, K1, P1, K1, P6, (K1, P1) twice, K1. Row 9: (K1, P1) twice, K6, P1, K3, P1, K6, (P1, K1) twice. Row 10: (K1, P1) twice, K1, P4, K1, P5, K1, P4, (K1, P1) twice, K1. Row 11: (K1, P1) twice, K4, P1, K7, P1, K4, (P1, K1) twice. Row 12: (K1, P1) twice, K1, P2, K1, P9, K1, P2, (K1, P1) twice, K1. Row 13: (K1, P1) twice, K2, P1, K11, P1, K2, (P1, K1) twice. Rows 14–25: Work rows 12–1 in reverse order. BO.	CO 25. Rows 1–5: <i>seed st border</i> (start row 1 with K1). Row 6 (WS): 5 <i>seed sts</i> , {P15 (motif)}, 5 <i>seed sts</i> . Row 7: 5 <i>seed sts</i> , {K7, P1, K7}, 5 <i>seed sts</i> . Row 8: 5 <i>seed sts</i> , {P6, K1, P1, K1, P6}, 5 <i>seed sts</i> . Row 9: 5 <i>seed sts</i> , {K5, P1, K3, P1, K5}, 5 <i>seed sts</i> . Row 10: 5 <i>seed sts</i> , {P4, K1, P5, K1, P4}, 5 <i>seed sts</i> . Row 11: 5 <i>seed sts</i> , {K3, P1, K7, P1, K3}, 5 <i>seed sts</i> . Row 12: 5 <i>seed sts</i> , {P2, K1, P9, K1, P2}, 5 <i>seed sts</i> . Row 13: 5 <i>seed sts</i> , {K1, P1, K11, P1, K1}, 5 <i>seed sts</i> . Rows 14–25: Work rows 12–1 in reverse order. BO.

Advantages of the Better Instructions

Even a cursory comparison of the two versions shows several benefits of writing out instructions in the more detailed way.

Border and Motif Stitches Are Separated and Identified

The most noticeable thing about the better instructions is that the border stitches and rows are clearly separated from the stitches and rows that make the motif. This separation makes it very easy for someone to use just the motif or to alter the border in some way.

The Better Instructions Help Catch Typos

Let's look at the instructions for the motif, which we enclosed in curly braces.

Notice how the first and last numbers both decrease by one stitch on successive rows. The sequence of

~~7-6-5-4-3-2-1~~

shows how the purl stitches are moving outward from the single purl stitch in row seven.

That matches up perfectly with what the chart shows.

The number of stitches between the purl bumps on rows eight through thirteen increase by two in each row (P1–K3–P5–K7–P9–K11). That might seem odd, until we remember that we're forming a **pair** of diagonal lines. Since the motif shape is a diamond, we have to move the two purl bumps farther apart on every row. Since we move each bump one stitch, then there must be **two** more stitches between them from one row to the next.

The original version of the instructions does show the same thing, and if we know what to look for, we can see it. But since the motif stitches are mixed with the border stitches, it's much harder to pull that information out.

The Space Needed for Each Version

I assume one of the reasons pattern writers and editors mix border and motif stitches is to save characters. If they can make an instruction line a few characters shorter, it may prevent the line from wrapping around to the next line (like rows eight, ten, and twelve do in the original instructions in the table above). If they can prevent wrapped lines, then each pattern will take up less of the page, so the book's pages can be physically smaller, the book can have fewer pages, or the book can contain more patterns.

But does the better version take up more space than the one that mixes border and motif stitches? Clearly not. In fact, the better version never wraps a single line! And according to my word processor, the original version of the instructions has 604 characters, including 125 spaces. The better version has only 511 characters with just 109 spaces.

Isn't it interesting that giving knitters better information about each portion of each row's instructions both improves the knitter's understanding and actually takes up less space?

Disadvantage of the Better Instructions

There is one thing that the better instructions lack: the knitter must know how to work seed stitch. We could add to the better instructions a simple line like

To make *seed st*, alternate K and P across the first row, then on all subsequent rows, K the P and P the K.

Adding this instruction line to the table above would still leave the better instructions shorter when considered as lines.

But if the book we're imagining has other projects with seed stitch, then the general instructions for working seed stitch could be placed in one location, instead of having them **explicitly written out in every single project that uses seed stitch**. Centralizing the instructions would save characters, lines, and potentially pages in the book, not to mention the effort spent in typing and proofreading the stitch-by-stitch instructions in all the patterns containing seed stitch. I would much rather the proofers concentrate on the important parts of each pattern, rather than going cross-eyed proofing seed stitch.

Charts with a Stitch Pattern

Let's use this same technique to write out instructions for projects that use a stitch pattern to make an all-over fabric, like the basket-weave hot pad from part two.

The Original Instructions for the Basket-Weave Hot Pad

These instructions are not very helpful if we want to use the basket-weave stitch pattern for a different project.

C0 40.

Rows 1–7: K.

Row 8 (WS): K4, P32, K4.

Row 9 (RS): K6, * P4, K2 *, rpt btw * to last 4 sts, K4.

Row 10: * K4, P2 *, rpt btw * to last 4 sts, K4.

Rows 11–12: Rpt rows 9–10.

Rows 13–14: Rpt rows 7–8.

Row 15: K4, P3, * K2, P4 *, rpt btw * to last 9 sts, K2, P3, K4.

Row 16: K7, * P2, K4 *, rpt btw * to last 3 sts, K3.

Rows 17–18: Rpt rows 15–16.

60	.....	59
58	.....	57
56	.....	55
54	.....	53
52	.....	51
50	.....	49
48	.....	47
46	.....	45
44	.....	43
42	.....	41
40	.....	39
38	.....	37
36	.....	35
34	.....	33
32	.....	31
30	.....	29
28	.....	27
26	.....	25
24	.....	23
22	.....	21
20	.....	19
18	.....	17
16	.....	15
14	.....	13
12	.....	11
10	.....	9
8	.....	7
6	.....	5
4	.....	3
2	.....	1
40393837363534333231302928272625242322212019181716151413121110987654321		

Rows 19–54: Rpt rows 7–18 3 times.

Rows 55–60: K.

B0.

If you're able to pull the basket-weave stitch pattern straight out of these instructions, you need to be writing your own book! (And I get the first copy! Well, OK, you can have the first, and I'll take the second.)

Re-Writing the Instructions

The full project chart from part two's "Tweaking a Chart" is on the facing page. Let's write out the hot pad's instructions the better way.

Cast On

We still cast on the same number of stitches, because we have forty knit symbols on row one. The first six rows make the garter stitch bottom border, so we'll say that explicitly. Giving the abbreviation here means we can save some typing later on.¹

CO 40.

Rows 1–6: Garter stitch (GS) border.

The Row of Original Blocks

The first pattern rows put two rows of stockinette between the bottom border and the first row of original blocks.

Row 7 (RS): 4 GS, {K32 (patt st)}, 4 GS.

Row 8 (WS): 4 GS, {P32}, 4 GS.

Notice that although row seven is all knits, we break up the instruction line into the three different sections that make up the hot pad: the right border, the stitch pattern, and the left border.

The first actual (well, interesting) pattern row of the original blocks, row nine, is easy enough, as we simply repeat a sequence of the same six stitches starting immediately after the right border, leaving us two stitches that aren't repeated, plus the left border.

Row 9: 4 GS, {* K2, P4 *, rpt btw *, K2}, 4 GS.

On row ten, we start with the garter stitch left border.

Row 10: 4 GS

¹ Yes, we could have abbreviated "seed stitch" in some way for the purl diamond instructions.

We now have two choices for how we write down the stitches for the pattern repeat.

- ☉ We can start the repeated sequence with stitch thirty-six, the stitch immediately adjacent to the left border.
- ☉ We can start the repeated sequence with stitch thirty-four, the same stitch it ended with on row nine.

The first option means that the asterisks forming the repeated group won't be aligned with one another between rows nine and ten. If we do the second option, the stitch repeat will be aligned. Let's do the second option.

Row 10: 4 GS, {P2, * K4, P2 *, rpt btw *}, 4 GS.

To complete the row of blocks, we do those two rows again.

Rows 11–12: Rpt rows 9–10.

Note that the pattern repeat, inside the curly braces according to the style established in row seven, clearly separates the stitch repeat from the plus stitches. We might be tempted to combine the pattern repeat with both borders, but our goal is to keep strictly apart the pattern stitches and the border stitches. So the initial “K2” of the stitch repeat is **not** combined with the “4 GS” knit stitches of the right border, and the “K2” plus stitches remain separated from the “4 GS” of the left border.

Since we deliberately kept out of the repeated stitches the same pair of stitches on rows nine and ten, we have kept the stitch repeat aligned on those rows.

The Row of Offset Blocks

We then work the two rows of stockinette that separate the row of original blocks from the row of offset blocks.

Rows 13–14: Rpt rows 7–8.

Like the original blocks, the offset blocks are four rows tall, and they're worked with a pair of rows we repeat. We'll start the repeat sequence immediately after the right border, and we're left with two stitches outside that sequence, just as we had on rows nine and ten. We finish with the left border.

Row 15: 4 GS, {* P3, K2, P1 *, rpt btw *, P2}, 4 GS.

Let's do the same thing for row sixteen that we did for row ten: we'll handle the two extra stitches from row fourteen, the ones that don't fit inside the repeating group, before we start the repeating group that will take us the rest of the way across the row.

Row 16: 4 GS, {K2, * K1, P2, K3 *, rpt btw *}, 4 GS.

Just as in the row of original blocks, we need to repeat the first two rows of the offset blocks.

Rows 17–18: Rpt rows 15–16.

Note again that that the private-side row sixteen's basket-weave pattern stitches, which begin and end with knits, are not combined with the left and right borders simply because the border happens to be garter stitch. That's because our goal is to keep isolated the stitches of both the main area and the borders. Doing so allows us and other knitters to

- 🌀 take the stitch pattern directly to a completely different project
- 🌀 alter the border in any of several ways: making it wider or narrower, changing it to a different stitch pattern, or simply removing it altogether

Repeat the Paired Rows of Blocks

Once we've completed the first pair of rows of original and offset blocks, we make three more sets, just like in the original instructions.

Rows 19–54: Rpt rows 7–18 3 times.

Finishing the Hot Pad

All that's left now is the top border and binding off. The only thing we'll do is explicitly label the last six rows as border rows.

*Rows 55–60: K (GS border).
B0.*

Comparing the Two Versions of the Instructions

Once again, we'll put both versions of the written-out instructions in a table where they're formatted identically.

Original Instructions	Better Instructions
CO 40. Rows 1–7: K. Row 8 (WS): K4, P32, K4. Row 9 (RS): K6, * P4, K2 *, rpt btw * to last 4 sts, K4. Row 10: * K4, P2 *, rpt btw * to last 4 sts, K4. Rows 11–12: Rpt rows 9–10. Rows 13–14: Rpt rows 7–8. Row 15: K4, P3, * K2, P4 *, rpt btw * to last 9 sts, K2, P3, K4. Row 16: K7, * P2, K4 *, rpt btw * to last 3 sts, K3. Rows 17–18: Rpt rows 15–16. Rows 19–54: Rpt rows 7–18 3 times. Rows 55–60: K. BO.	CO 40. Rows 1–6: Garter stitch (GS) border. Row 7 (RS): 4 GS, {K32 (st patt)}, 4 GS. Row 8 (WS): 4 GS, {P32}, 4 GS. Row 9: 4 GS, {* K2, P4 *, rpt btw *, K2}, 4 GS. Row 10: 4 GS, {P2, * K4, P2 *, rpt btw *}, 4 GS. Rows 11–12: Rpt rows 9–10. Rows 13–14: Rpt rows 7–8. Row 15: 4 GS, {* P3, K2, P1 *, rpt btw *, P2}, 4 GS. Row 16: 4 GS, {K2, * K1, P2, K3 *, rpt btw *}, 4 GS. Rows 17–18: Rpt rows 15–16. Rows 19–54: Rpt rows 7–18 3 times. Rows 55–60: K (GS border). BO.

Differences

If we start with character counts, the original instructions use 391 characters (with 87 spaces), while the better version uses 452 characters (with 98 spaces). But it’s interesting that even though the better version of the instructions completely separates the borders from the basket-weave stitch pattern and even needs quite a few more characters, it doesn’t take up any more **lines** to do so. Nor do any of the instruction lines wrap in the better version.

As we saw in part two’s “Finding the Pattern Repeat,” the original instructions do **not** put the asterisks at the actual pattern repeat boundaries. In the better instructions, though, the plus stitches are separated from the stitch repeat for both sets of blocks, because on the rows following each block’s first row, we deliberately kept separate the same pair of stitches (thirty-five and thirty-six) outside the repeated sequence. That’s a huge advantage if we want to make a basket-weave project in the round, like a hat or socks, because we can simply ignore the plus stitches outside the asterisks. We can’t do that with the original instructions, because the border, pattern, and plus stitches are all mingled.

Summary

Do you suppose that knitters around the world could ask—or demand—of publishers that pattern instructions be written in such a way that we can lift out a motif or stitch pattern, whether we want to change a border or switch a flat project to be worked in the round?

Probably not. That’s just one more reason why we ought to learn to at least read charts,

even if we don't want to work from them: we will be able to write out a better version of the instructions.

Mirror-Image Knitters

If MIKs want to write out instructions from a chart, they would do all the same steps as shown here except for one thing: they would have to read each row in the opposite direction, because they work each row in the opposite direction.

To avoid any confusion, make it clear that the written-out instructions are specifically for MIKs. The two projects demonstrated here happen to be symmetrical vertically, so traditional and mirror-image knitters could both work from the same instructions and get identical results. But if a TK followed an MIK's written-out instructions for an asymmetrical design, the design would be reversed. A lace project with a leaf motif might look acceptable (or it might not), but a project with letters of the alphabet would not.

If a TK and an MIK both work from the same **chart**, however, they get identical results as long as both knitters use the proper directional decreases and cable crossing methods for their knitting style, as we've seen elsewhere.