

KNITWEAR
design
WORKSHOP

A Comprehensive Guide to Handknits



SHIRLEY PADEN

Table of Contents

Introduction 10

CHAPTER ONE

1 Planning Your Design 12

Researching and Refining an Idea	12
Layout of the Design Idea	14
Taking Measurements	15
Understanding Ease	23
Selecting a Body Shape and Drawing a Schematic	25
Classic Silhouette Worksheet	26
Dropped-Shoulder Worksheet	28
Double-Taper Worksheet	30
Single-Taper Worksheet	32
Reverse-Taper Worksheet	34

2 CHAPTER TWO Selecting the Fabric 36

Choosing the Yarn	36
Fiber Content	37
Yarn Construction	43
Yarn Weight Classification	44
Choosing a Pattern Stitch	45
Understanding Pattern Stitch Instructions	55
Charts	56
Combining Pattern Stitches	60
The Gauge Swatch	60
Measuring Gauge	61
Translating Measurements to Numbers of Stitches and Rows	63

3 CHAPTER THREE Classic Silhouette Pullover. 66

Classic Silhouette	66
Body	69
Sleeves	81

Classic Body Worksheet	90
Sleeve Worksheet	92

4 CHAPTER FOUR Alternate Silhouettes. 94

Dropped Shoulder	94
Modified Drop Shoulder	100
Double-Tapered Body	107
Single-Tapered Body	114
Reverse-Tapered Body	116

5 CHAPTER FIVE Cardigans. 120

Center Closure	121
Overlapping Front Bands	127
Independent Overlapping Bands	132
Overlapping Fronts	136
Rounded Front Edges	140
One-Piece Construction	148

6 CHAPTER SIX Skirts and Dresses. 154

Straight Skirt	155
Side-Seam Shaping	155
Stacked Circular Decreases	159
A-Line Skirt	163
Dresses	165

7 CHAPTER SEVEN Alternate Armhole Shaping 172

Classic Raglan	173
Circular Yoke	180
Classic Saddle Shoulder	190

8 CHAPTER EIGHT Sleeves and Cuffs. 194

Straight Sleeve	195
Lantern Sleeve	197
Gathered-Top Sleeve	199
Short Sleeve	203
Cuffs	205

Classic Fold-Back Cuff	205
Bell Cuff	206
Placket Cuff	209

9 CHAPTER NINE Necklines 214

Classic Boatneck	214
Square Neckline	216
Round Neckline	217
V-Neckline	220

10 CHAPTER TEN Neckbands, Collars, and Lapels . . . 224

Neckbands and Collars	224
Neckbands	224
Straight Collar	227
Split Collar	228
Turtleneck Collar	229
Mock Turtleneck Collar	230
Cowl Collar	231
Peter Pan Collar	232
Large Round-Yoke Collar	233
Large Round Collar	234
Horizontal Shawl Collar	235
Classic Vertical Shawl Collar	237
Wide Vertical Shawl Collar	239
Shawl Collar Worked Horizontally	243
Horizontal Shawl Collar with Buttonbands	247
Lapels	250
Classic Lapel	250
Notched Lapel	254

11 CHAPTER ELEVEN Finishing Techniques 260

Blocking	261
Shoulder Seams	262
Three-Needle Bind-Off	263
Horizontal-to-Horizontal Seam	263
Necklines	264
Pick Up and Knit	264
Pick Up and Purl	266
Whipstitch Seam	266
Armhole Seams	267
Backstitch Seam	267
Horizontal-to-Vertical Seam	268

Sleeve and Side Seams	269
Vertical-to-Vertical Seam (Mattress Stitch)	269
Vertical Backstitch Seam	270
Buttonholes	271
Horizontal One-Row Buttonhole	271
Eyelet Buttonhole	272
Vertical Three-Row Buttonhole	272
Zippers	273

Projects 274

Twist Flowers Pullover	274
Cable Coat with Cape Collar	282
Double Leaves & Twists Duster	290
Pea Coat	306

Appendix 326

Abbreviations	326
Design Process Checklist	327
CYCA Measurement Charts	328
Shaping Formula Variations	332
Bibliography	340
Sources for Supplies	341
Index	342

KNITWEAR
design
WORKSHOP

A Comprehensive Guide to Handknits



SHIRLEY PADEN

RESEARCHING AND REFINING AN IDEA

Every design begins with an inspiring thought, whether fueled by a desire to satisfy a creative drive or in response to a favorite garment or other visual stimuli. There are innumerable reasons for wanting to design or replicate a garment, but the journey to a successful end begins with the same first step. That is, to carefully think about the item you plan to construct. What is its purpose—everyday wear, special occasion, gift? What do you want the design to convey—comfort, elegance, utility? What key elements are important to the look of your design—body shape and length, neck shape and depth (“V”, round, square, boat, etc.), sleeve shape and length (bell or turn-back cuffs, short or full length, etc.), type of sleeve cap (raglan, set-in, dropped shoulder, etc.), and edgings, collar, buttons, and so on. Take the time to let your design ideas take shape. Draw sketches, visit your yarn shop, browse through books of stitch patterns, and envision your garment.

When you have a clear picture in your mind, you’re ready to lay out a design profile. Fill out as much of the Design Profile Outline on page 13 as you can. (Photocopy this page and fill it out for every garment you make.) This will help you solidify your design ideas in preparation for generating knitting instructions.

DESIGN PROFILE OUTLINE

Designer Name

GARMENT DESCRIPTION

Designer Overall Objectives *(summarize the purpose the garment will serve for the wearer at its completion)*

Describe the feeling(s) to be projected through the garment

(use two to four adjectives)

Type of garment *(cardigan, pullover, etc.)*

Projected wearer *(male, female, child, etc.)*

Yarn name, fiber content, and size

Needle size

Name and source of the stitch pattern

Finished dimensions of the gauge swatch *(including number of stitches and rows)*

CONSTRUCTION ELEMENTS:

Length *(cropped, waist, hip, knee, etc.)*

Structure/shape *(tapered, kimono, blouson, etc.)*

Sleeve/armhole type *(dropped, set-in, raglan, etc.)*

Sleeve length *(short, bracelet, wrist, thumb)*

Neckline type *(“V”, shawl, round, scooped, square, etc.)*

Other elements *(buttons, zipper, etc.)*

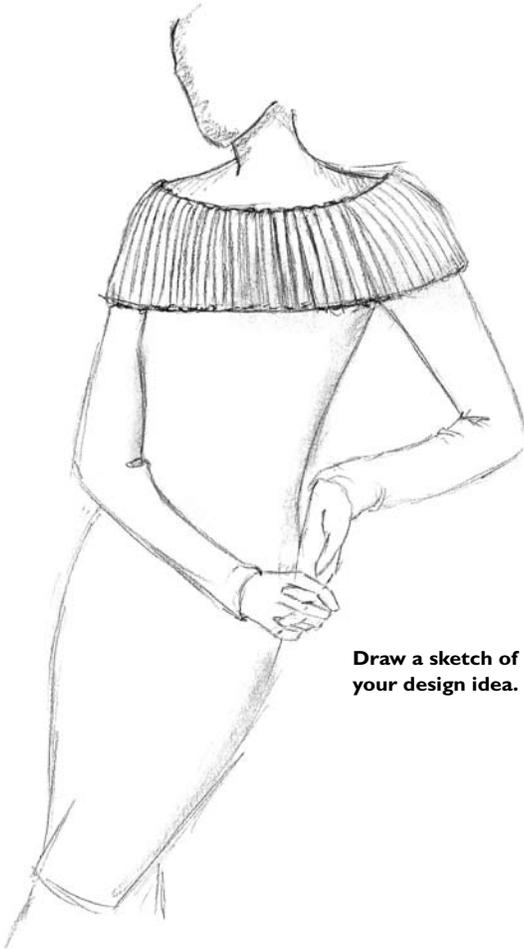
Special ornaments *(embroidery, crochet, beads, etc.)*

Other important elements or designer notes

There are five key garment silhouettes, but for now you need only determine the general properties—will the garment be cropped or long; boxy or hug the curves of the body? To a large extent, the garment shape will determine the fabric selection. For example, a thick yarn and a bulky stitch pattern worked in a silhouette that stops at the hips and follows the body curves may make you look heavier, something you may or may not want.

Next, return to the yarn shop to narrow down your yarn choices and choose the pattern stitches that are best suited for your garment silhouette. Consider the “3-Fs”: form, fabric, and function. Simply put, the end use of the garment (function) must be taken into consideration when selecting the yarn/stitch pattern combination (fabric), and both function and fabric must be considered together with the shape of the garment (form). The 3-Fs will help steer you toward the practical, which is easily overlooked when creativity flows.

Test a few stitch patterns with a few different yarns so that you’ll be able to select the combination that best conveys the “feeling”—sophisticated, trendy, sporty, conservative—that you want to achieve in your design.

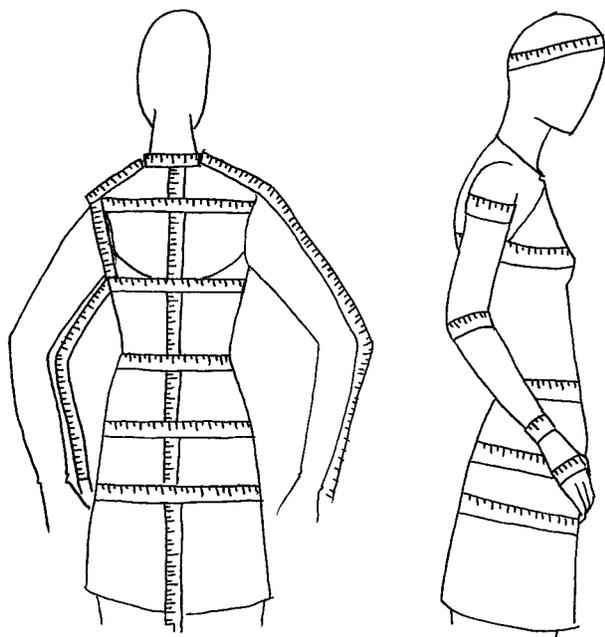


Draw a sketch of your design idea.

LAYOUT OF THE DESIGN IDEA

You’re now ready to generate a sketch of your idea, take measurements, knit a swatch of the fabric, make a chart of the stitch pattern, and draw a schematic.

Using a pencil, draw a full-page sketch of your design (place tracing paper over a photo if you’re uncomfortable sketching freehand). Capture all of the design elements that appeal to you, such as an unusual cuff or neckline, an off-center front closure, collar, etc. Sketch, erase, and resketch until you’re satisfied with the overall look.



Accurate body measurements are key to a perfect fit.

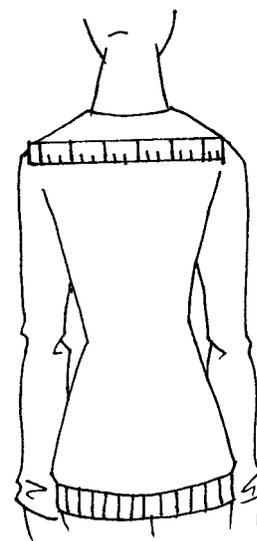
TAKING MEASUREMENTS

In designing a knitted garment, there are two important sets of measurements—body measurements and finished garment measurements. Accurate body measurements are key to a well-fitting garment. You may also need to take measurements from a garment (called a “comfort” garment) that fits the way that you want your sweater to fit. Compare these measurements to the body measurements to determine the amount of ease—the difference between the garment measurements and the actual body measurements—that you want to add.

Body Measurements

You’ll get the most accurate body measurements if you wear just your undergarments, a body suit, or a form-fitting tunic. Stand in front of a mirror to make sure you’re standing straight and holding the tape measure in the correct place. Ideally, another person should take the measurements as you observe in the mirror. Measure all of the parts of the body listed in the Individual Measurements Worksheet on page 19. If you want to work to a general size instead of taking your own measurements, refer to the Standard Body Measurements Charts on pages 328 to 331.

Shoulder Width: Measure across the back between the shoulder bones, where a set-in sleeve seam would end. Round the shoulders so that the tops of the shoulder bones are easier to feel, then stand up straight with good posture and measure across the top of the back from the outside top of one shoulder bone to the other.

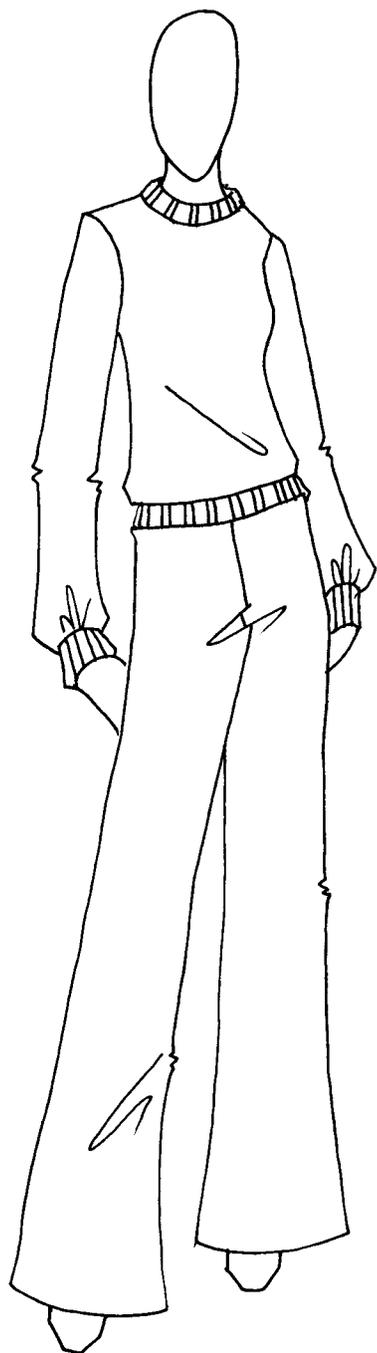


shoulder width



chapter three

Classic Silhouette Pullover



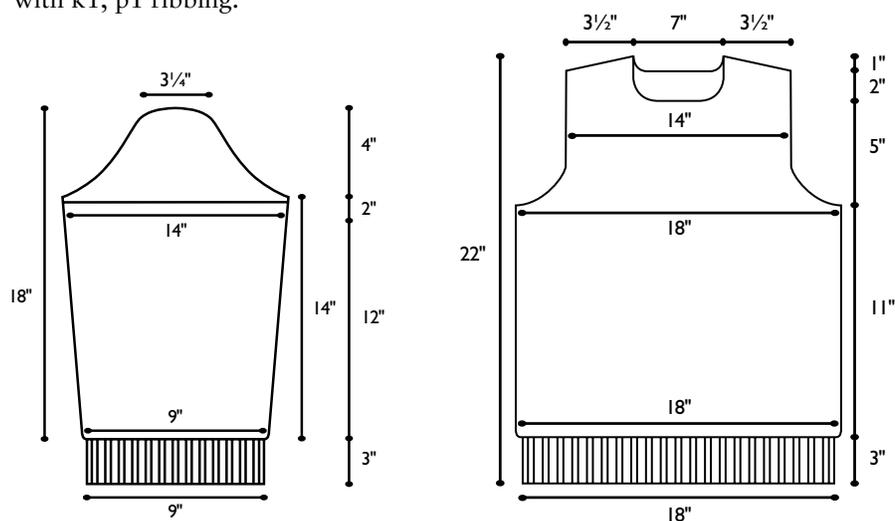
In this chapter, we'll go through the construction process and introduce important design techniques that will be used throughout the book. We will create step-by-step instructions from a working schematic that has the widthwise and lengthwise measurements translated into numbers of stitches and rows based on the gauge measurements. To illustrate these steps, we'll build the most common shape—a pullover with a classic body silhouette worked in four pieces (a front, a back, and two identical sleeves) all worked upward from the lower edge.

The “blueprint” for your garment is really a series of worksheets and charts. The first shows all the essential numbers and measurements necessary for shaping your garment translated into stitches and rows. These numbers annotate the working schematic—a drawing of the garment pieces that includes all measurements, corresponding stitch or row numbers, gauge numbers, pattern repeats, and other pertinent information. The final worksheet creates the step-by-step calculations and instructions needed to construct your garment—increases, decreases, pick-up layouts, and shaping. If you plan to write a formal pattern, add a list of every technique you plan to use. This will become the “notes” section of your written pattern.

For garments planned with stitch patterns other than stockinette, you will need an additional worksheet to plan the flow of the stitch pattern so that it is centered both widthwise and lengthwise on the body and sleeves. Always chart several stitch and row pattern repeats to ensure a clear picture of the stitch pattern flow. Make a series of small charts to examine how the pattern will flow across the side seams of a pullover, between body and sleeves, and across the front opening of a cardigan.

Designing handknits is not a complicated process; it is simply a matter of following a series of logical steps. If you have followed the instructions for selecting yarn, making a gauge swatch, drawing a sketch, and taking body and garment measurements, you have gathered all of the necessary “tools” for laying out your garment. The balance of the process is the equivalent of assembling the pieces.

In a classic silhouette, the width of the front and back is the same from the cast-on edge to the base of the armholes. Our example pullover measures 36" (91.5 cm) at the bust (18" [45.5 cm] width) and includes set-in sleeves, a high round neck, and shaped shoulders. The body and sleeves are worked in stockinette stitch and edged with k1, p1 ribbing.



Classic silhouette schematic.

Conversion of Measurements to Numbers of Stitches and Rows

WIDTHS

Number of stitches in border (hip width × border stitch gauge)

$$18" (45.5 \text{ cm}) \times 6.5 \text{ stitches/inch} = 117 \text{ stitches}$$

Number of stitches at base of body (hip width × body stitch gauge + 2 selvedge stitches)

$$18" (45.5 \text{ cm}) \times 5.5 \text{ stitches/inch} + 2 \text{ selvedge stitches} = 101 \text{ stitches}$$

Number of stitches in bust width (bust width × body stitch gauge + 2 selvedge stitches)

$$18" (45.5 \text{ cm}) \times 5.5 \text{ stitches/inch} + 2 \text{ selvedge stitches} = 101 \text{ stitches}$$

Number of stitches in cross-back (shoulder-to-shoulder width × body stitch gauge + 2 selvedge stitches)

$$14" (35.5 \text{ cm}) \times 5.5 \text{ stitches/inch} + 2 \text{ selvedge stitches} = 79 \text{ stitches}$$

Number of stitches in neck width (neck width × body stitch gauge)

$$7" (18 \text{ cm}) \times 5.5 \text{ stitches/inch} = 38.5 \text{ stitches; round up to nearest odd number} = 39$$

Number of stitches in each shoulder (shoulder width × body stitch gauge + 1 selvedge stitch)

$$3\frac{1}{2}" (9 \text{ cm}) \times 5.5 \text{ stitches/inch} + 1 \text{ selvedge stitch} = 20.25 \text{ stitches; round down to nearest even number} = 20 \text{ stitches}$$

LENGTHS

Number of rows in border (border length × border row gauge)

$$3" (7.5 \text{ cm}) \times 9 \text{ rows/inch} = 27 \text{ rows; round up to nearest even number} = 28 \text{ rows}$$

Number of rows from beginning of body to base of armhole (length × body row gauge)

$$11" (28 \text{ cm}) \times 7.5 \text{ rows/inch} = 82.5 \text{ rows; round down to nearest even number} = 82 \text{ rows}$$

NEEDLES

Border: Size U.S. 4 (3.5 mm)

Body: Size U.S. 6 (4 mm)

SWATCH MEASUREMENTS

Border (k1, p1 ribbing): 52 stitches = 8" (20.5 cm) wide; 54 rows = 6" (15 cm) long (Note: measurements are averaged between the relaxed and stretched states; see page 69).

Body (stockinette stitch): 44 sts = 8" (20.5 cm) wide; 60 rows = 8" (20.5 cm) long

GAUGE

Border (k1, p1 ribbing): 6.5 stitches and 9 rows = 1" (2.5 cm)

Body (stockinette stitch): 5.5 stitches and 7.5 rows = 1" (2.5 cm)

KEY MEASUREMENTS

Bust circumference: 34" (86.5 cm) + 2" (5 cm) ease = 36" (91.5 cm)

Bust width: 18" (45.5 cm)

Cross-back width: 14" (35.5 cm) + 0" ease = 14" (35.5 cm)

Neck width: 7" (18 cm)

Shoulder width: 3½" (9 cm)

Length from bottom to base of armholes: 3" (7.5 cm) for lower ribbing + 11" (28 cm) for lower body = 14" (35.5 cm)

Armhole depth: 6" (15 cm) + 1" (2.5 cm) ease = 7" (18 cm)

Length from base of armholes to base of front neck: 5" (12.5 cm)

Length from base of front neck to base of shoulder: 2" (5 cm)

Shoulder slope: 1" (2.5 cm)

Notes

- A garter-stitch selvedge (knit every row) is added to each end of all rows in the stockinette-stitch portions to facilitate seaming.
- Rows are worked in pairs (a right-side row followed by a wrong-side row) so all row numbers are rounded to even numbers.
- Measurements include ease allowance.
- The front and back are worked identically to the beginning of the neck shaping; the front neck is shaped differently than the back neck.
- Both sleeves are worked identically.

PATTERN SYMMETRY

Pattern symmetry is important for balancing the pattern at the edge and is critical for a professional finished look along the seams. In the same way that selvages are used as seaming stitches for the body of the garment, seaming stitches are also used for cuffs and borders. Seams are worked just inside these edge stitches. Seaming a knit stitch to a purl stitch can create a less-than-professional look if the k1, p1 stitch pattern is left unaltered. Therefore, another stitch should be added to the multiple so that there will be a knit stitch at each end of the needle. This will make the pattern a multiple of 2 stitches plus 1 balancing stitch so that there will be a knit stitch at each edge, which will curl to the wrong side. When seaming, reach across the knitted edge stitches and seam the first purl stitches on each side together for the side seams to look invisible as the seamed purl stitches appear as a single stitch.

Number of rows from base of armhole to base of front neck (length × body row gauge)

$$5" (12.5 \text{ cm}) \times 7.5 \text{ rows/inch} = 37.5 \text{ rows; round up to nearest even number} \\ = 38 \text{ rows}$$

Number of rows from base of front neck to base of shoulder (length × body row gauge)

$$2" (5 \text{ cm}) \times 7.5 \text{ rows/inch} = 15 \text{ rows; round down to nearest even number} = 14 \text{ rows}$$

Number of rows in armhole (armhole length × body row gauge)

$$7" (18 \text{ cm}) \times 7.5 \text{ rows/inch} = 52.5 \text{ rows; round down to nearest even number} = 52 \text{ rows}$$

Number of rows in shoulder slope (length × body row gauge)

$$1" (2.5 \text{ cm}) \times 7.5 \text{ rows/inch} = 7.5 \text{ rows; round up to nearest even number} = 8 \text{ rows}$$

Number of rows from base of armhole to base of back neck (length × body row gauge)

$$7\frac{1}{4}" (18.5 \text{ cm}) \times 7.5 \text{ rows/inch} = 54.5 \text{ rows; round to the nearest even number} \\ = 54 \text{ rows}$$

Number of rows from base of back neck to top of shoulder (length × body row gauge)

$$\frac{3}{4}" (2 \text{ cm}) \times 7.5 \text{ rows/inch} = 5.6 \text{ rows; round up to the nearest even number} = 6 \text{ rows}$$

MATH CHECK!

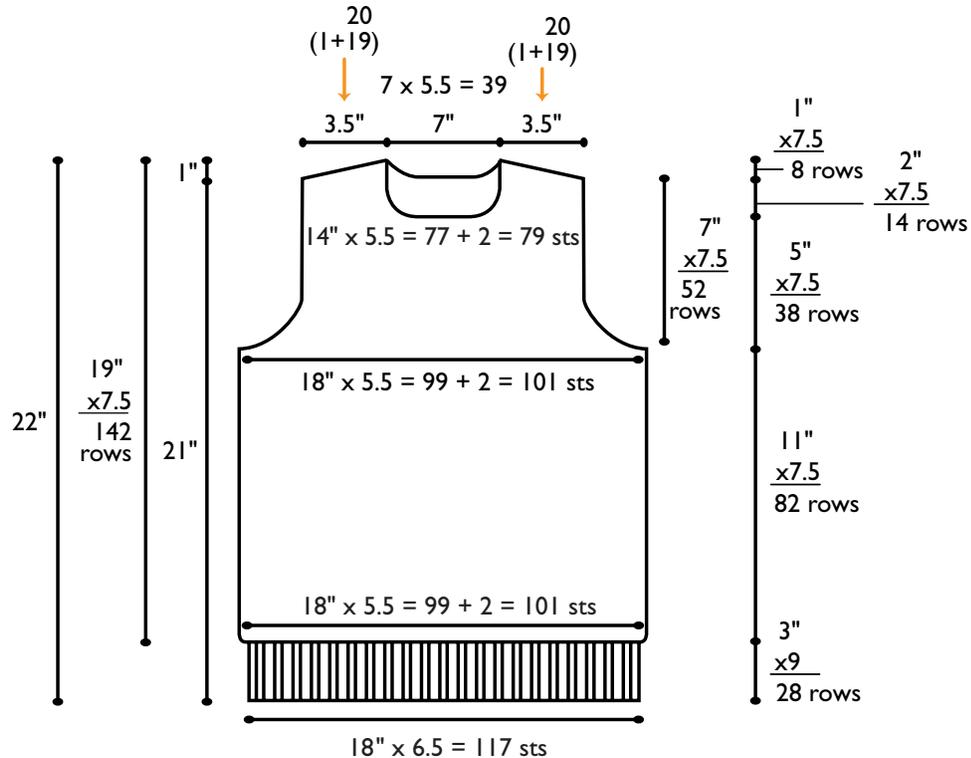
The total number of rows worked should add up to the desired total length.

Total rows: $28 + 82 + 38 + 14 + 8 = 170 \text{ rows}$

Length in ribbing: $3" (7.5 \text{ cm}) \times 9 \text{ rows/inch} = 28 \text{ rows}$

Length in stockinette stitch: $11" (28 \text{ cm}) + 5" (12.5 \text{ cm}) + 2" (5 \text{ cm}) \\ + 1" (2.5 \text{ cm}) \times 7.5 \text{ rows/inch} = 142 \text{ rows}$

Total length in ribbing and stockinette stitch: $28 \text{ rows} + 142 \text{ rows} = 170 \text{ rows}$



Schematic of the example classic body silhouette annotated with numbers of stitches and rows.

BODY

I always recommend knitting the back first so that any unanticipated problems can be worked out where they will be less noticeable. This also allows you to become familiar with your stitch pattern and establish a smooth tension before beginning the front. However, for figuring out the knitting instructions, we'll begin with the front, which typically has more steps than the back.

Step 1: Cast-On and Ribbing/Border

The front begins with stitches cast on for the lower edge, which are worked in k1, p1 ribbing on the smaller needles. We therefore need to calculate the number of stitches to cast on based on the gauge of the ribbing.

To allow for the stretch in ribbing, calculate the gauge based on the average between its relaxed and expanded states as described below. For our example, the ribbing swatch contains 40 stitches and measures 5" (12.5 cm) wide when relaxed and 8" (20.5 cm) wide when stretched. Divide the number of stitches by the width to get the gauge for each:

Relaxed: $40 \text{ stitches} \div 5" (12.5 \text{ cm}) = 8 \text{ stitches/inch}$

Stretched: $40 \text{ stitches} \div 8" (20.5 \text{ cm}) = 5 \text{ stitches/inch}$

Average: $(8 \text{ stitches/inch} + 5 \text{ stitches/inch}) \div 2 = 6.5 \text{ stitches/inch}$

We know that we want the lower edge of our sweater to measure 18" (45.5 cm) wide. Multiply this width by the averaged gauge to determine the number of stitches for the ribbing.

$18" (45.5 \text{ cm}) \times 6.5 \text{ stitches/inch} = 117 \text{ stitches}$

The row gauge for the ribbing is 9 rows = 1" (2.5 cm), and the pattern is planned for 3" (7.5 cm).

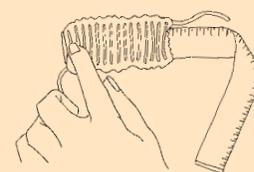
$9 \text{ rows} \times 3" (7.5 \text{ cm}) = 27 \text{ rows}$

AVERAGING RIBBING GAUGE

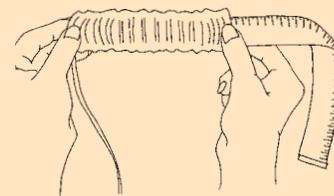
To allow for the stretch in ribbing, calculate the gauge based on the average between its relaxed and expanded states (so that it will be neither too baggy nor too tight). To do this, knit a swatch that measures about 6" (15 cm) wide and 3" (7.5 cm) long. Measure the width of the swatch with the ribbing relaxed, then measure it again while stretching it as much as you feel necessary to give the desired cling. Do not stretch the ribbing as far as it will go unless that's the way you want the border to fit around your body. The measurements will give the "relaxed" and "stretched" gauges.

Ribbing looks "baggy" when it is too close to the desired width when relaxed. Remember that in ribbing the purl stitches tend to recede on the front and push out as knit stitches on the reverse side of the fabric. In effect, they visually disappear when the ribbing is relaxed, but they do add width when the ribbing is stretched to any degree. Therefore, there will be far too much fabric in the ribbing if it isn't stretched when the gauge is determined. This will cause the border to be heavy and wobble out of shape.

To begin, divide the number of stitches in the swatch by the relaxed width to get the relaxed gauge (in stitches/inch), then divide the number of stitches by the stretched width to get the stretched gauge (in stitches/inch). To get the averaged gauge, add the two gauges together, then divide the sum by two.



Measure the width of the ribbing in its relaxed state.



Measure the width of the ribbing stretched the desired amount.

CLASSIC BODY WORKSHEET

NEEDLE SIZE

Border _____ Body _____

SWATCH MEASUREMENTS

Border _____ Stitch pattern _____

Body _____ Stitch pattern _____

GAUGE For ribbing, measure the averaged gauge (see page 69).

Border stitch gauge _____

Border row gauge _____

Body stitch gauge _____

Body row gauge _____

KEY MEASUREMENTS (INCLUDING EASE)

Bust circumference _____

Bust width _____

Cross-back width _____

Neck width _____

Shoulder width _____

Length from bottom of garment to base of armholes _____

Notch width (*modified-drop shoulder*) _____

Armhole depth (*set-in sleeve*) _____

Length from base of armholes to base of front neck _____

Length from beginning of front neck to base of shoulders _____

Shoulder slope _____

Neck-to-wrist measurement _____

Percentage of stitches in initial front-neck bind-off _____

Percentage of stitches in initial back-neck bind-off _____

Fill out the information on this page and use it in conjunction with your schematic to create step-by-step knitting instructions.

CALCULATIONS FOR NUMBERS OF STITCHES AND ROWS

Number of stitches in border (hip width × border stitch gauge)

Number of stitches at base of body

(hip width × body stitch gauge + 2 selvedge stitches)

Number of stitches in bust width

(bust width × body stitch gauge + 2 selvedge stitches)

Number of stitches in notch (modified drop-shoulder only)

(notch width × body stitch gauge)

Number of stitches in cross-back

(shoulder-to-shoulder width × body stitch gauge + 2 selvedge stitches)

Number of stitches in neck width

(neck width × body stitch gauge)

Number of stitches in each shoulder

(shoulder width × body stitch gauge + 1 selvedge stitch)

Number of rows in border

(border length × border row gauge)

Number of rows from beginning of body to base of armhole

(length × body row gauge)

Number of rows from beginning of body to base of front neck

(length × body row gauge)

Number of rows from beginning of body to base of back neck

(length × body row gauge)

Number of rows from beginning of body to base of shoulder

(length × body row gauge)

Number of rows from base of armhole to base of front neck

(length × body row gauge)

Number of rows from base of front neck to base of shoulder

(length × body row gauge)

Number of rows in notch (modified-drop shoulder)

(notch depth × body row gauge)

Number of rows in armhole (armhole length × body row gauge)

Number of rows in shoulder slope (length × body row gauge)

Number of rows from base of armhole to base of back neck

(length × body row gauge)

Number of rows from base of back neck to base of shoulder

(length × body row gauge)

Fill out the information on this page and use it in conjunction with your schematic to create step-by-step knitting instructions.

- A-line skirts, 163–164
 abbreviations and symbols, 58–59, 326
 acrylic, 42
 allo, 40
 alpaca, 38
 angora, 39
 animal fibers, 37–39
 armhole shaping
 circular yoke, 180–189
 classic silhouette (set-in sleeves), 75
 measurements, 16
 modified dropped shoulder, 103
 raglan, 173–179
 saddle shoulder, 190–193
 seams, 267–268
- babies, measurements and sizing, 328
 backstitch seams, 259, 267, 270
 balancing stitches (plus stitches), 55
 bamboo, 41
 bell cuffs, 206–209
 binding off
 neck stitches, 77–79
 sloping bind-off, 77
 three-needle bind-off, 263
- blocking, 261
 boatneck necklines, 214–126
 body measurements
 babies, 328
 children, 329
 how to take, 15–19
 men, 331
 women, 330
- broken ribs, 48
 Brunette, Cheryl, 70, 332
 button bands
 with shawl collar, 247–249
 worked separately, 236
 buttonholes, 271–272, 339
- cable cast-on, 271
 cable stitch patterns, 52, 306–325
 Cabled Coat with Cape Collar, 282–289
 camel hair, 39
 cardigans
- Cabled Coat with Cape Collar, 282–289
 center closure, 121–126
 Double Leaves and Twists Duster, 290–305
 independent overlapping front bands, 132–135
 one-piece construction, 148–153
 overlapping front bands, 127–131
 overlapping fronts, 136–140
 Pea Coat, 306–325
 rounded front edges, 140–147
- cashmere, 38
 casting on
 cable cast-on, 271
 provisional cast-on, 157
- cellulose fibers, 40–41
 charts, reading, 56–57
 check patterns, 49
 chemise dresses, 165
 children, measurements and sizing, 329
 circular knitting, 56–57
 circular yoke garments, 180–189
- classic silhouette pullovers
 body instructions, 69, 74–80
 conversion of measurements to stitches and rows, 67–68, 81–82, 91, 93
 measurements, 67, 81
 schematics, 27, 67, 68, 81
 sleeve instructions, 81–89
 Twist Flowers Pullover, 274–281
 worksheets, 26, 90–93
- collars. *See also* necklines
 characteristics, 225
 cowl, 231
 large round, 234
 mock turtleneck, 230
 Peter Pan, 232
 round yoke, 233
 shawl, 235–249
 straight or split, 227–228
 turtleneck, 229
- colorwork patterns, 53, 54
 condensed shaping formula, 72
- cotton, 40
 cowl collars, 231
 Craft Yarn Council of America guidelines, 44, 328–331
 crochet stitches, 277
 cuffs. *See also* sleeves
 bell cuff, 206–209
 fold-back cuff, 205–206
 placket cuff, 209–213
- decimals, converting to fractions
 decreases. *See also* shaping formulas
 calculating rate of, 70–73
 directional (slanting) decreases, 87, 174
 double, 337–338
 sloped bind-off, 77
 stacked circular decreases (skirt), 159–162
- designing garments. *See also* measurements
 3-Fs, 14
 body shapes and schematics, 26–35
 Design Process Checklist, 327
 Design Profile Outline, 13
 sketching, 14, 25
- Double Leaves and Twists Duster, 290–305
- double-taper garments
 basic instructions, 107–113
 Pea Coat, 306–325
 tapered dress, 166–171
 worksheet and schematics, 30–31, 107
- dresses
 chemise silhouette, 165
 tapered dress, 166–171
- dropped-shoulder garments
 basic instructions, 94–99
 Cabled Coat with Cape Collar, 282–289
 converting measurements to stitches and rows, 63–64, 96–97
 modified drop-shoulder, 100–106
 worksheet and schematics, 28–29, 95
- ease allowances, 23–24, 121
 eyelet buttonholes, 272
- Fair Isle technique
 characteristics, 53
 Fair Isle Vest, 148–152
 My Fair Isle Lady, 120, 153
 felting, 42
 fiber types, 36–42
 finishing
 blocking, 261
 buttonholes, 271–272, 339
 seams, 262–270
 zippers, 273
- fit. *See also* measurements
 lengthwise stretch, 74, 110
 shaping formulas, 70–73, 332–338
- fold-back cuff, 205–206
 fractions, converting to decimals, 62
- garter stitch, 47
 gathered top sleeves, 199–202
 gauge
 checking during knitting, 75
 measuring, 61–62
 swatches, 60–61
 yarn weight and, 44
 guanaco, 39
- hemp, 40
 hems, 158
- increases. *See also* shaping formulas
 calculating rate of, 70–73
 double, 337–338
 M1 increase, 196
- Individual Measurements Worksheet, 19
 intarsia, 54
- joining. *See* seams
 jute, 41
- knitting instructions
 charts, 56–57
 symbols, 58–59
 terminology, 55
- lace patterns, 54, 290–305
 lantern sleeves, 197–198

- lapels
 - classic, 250–253
 - notched, 254–259
- linen, 40
- llama, 38
- loft, 42
- lyocell (Tencel), 41
- mattress stitch, 269–270
- measurements
 - converting to stitches and rows, 63–64, 93
 - curved areas, 20
 - ease allowances, 23–24
 - finished garment measurements, 20–23
 - standard measurements and sizing, 328–331
 - taking body measurements, 15–19
 - worksheet, 19
- men, measurements and sizing, 331
- mitered corners, 226
- mock turtleneck, 230
- modal, 41
- modified drop-shoulder garments, 100–106
- mohair, 38
- “more or less” shaping formula, 70–73, 332–333
- moss stitch, 49
- neckbands, 148–152, 224–226
- necklines. *See also* collars
 - boatneck, 214–126
 - characteristics, 214
 - finishing, 264–266
 - measurements, 17
 - plackets, adding, 220
 - round, 76–80, 217–219, 225
 - square, 216–217, 225
 - V-neck, 139, 220–223, 226
- needles, recommendations by yarn weight, 44
- nylon, 42
- off-the-shoulder circular yokes, 189
- one-piece cardigans, 148–153
- pattern stitches
 - combining, 60
 - effect on garment fit, 20
 - repeats, 55
 - rounding, 63, 64, 76
 - symmetry and flow, 68, 149, 153, 213
 - types and characteristics of, 45–54
- Pea Coat, 306–325
- Peter Pan collars, 232
- picking up stitches, 264–266, 338–339
- pillling, 42
- placket cuffs, 209–213
- plackets, neckline, 220
- planning. *See* designing garments
- pleated top sleeve, 202
- polyester, 42
- polypropylene, 42
- protein fibers, 37–39
- provisional cast-on, 157
- qiviut, 39
- raglan armhole shaping, 173–179
- ramie, 40
- rayon, 41
- repeats, 55
- resiliency, fiber, 42
- reverse-taper garments, 34–35, 116–119
- ribbing
 - basic characteristics, 46
 - broken ribs, 48
 - calculating average gauge, 69
 - k1, p1 instructions, 55
 - twisted, 50
 - uses for, 60
- round necklines, 76–80, 217–219
- rounding, 63, 64, 76
- row gauge, 62
- saddle shoulder garments, 190–193
- seams
 - backstitch, 259, 267, 270
 - horizontal to horizontal, 263, 267
 - horizontal to vertical, 268
 - picking up stitches, 264–266
 - three-needle bind-off, 263
 - vertical to vertical, 269–270
 - whipstitch, 249, 266
- seed stitch, 49
- selvage stitches, 55, 74
- set-in sleeves, 81–89
- shaping elements, 87, 174
- shaping formulas
 - adjusted formula, 333–335
 - basic formula, 70–73, 332–333
 - buttonhole placement, planning, 339
 - condensed formula, 72
 - double increases/decreases, 337–338
 - even vs odd stitches, 76
 - expanded formula (right-side or wrong-side rows), 336–337
 - pick-up stitches, calculating, 338–339
 - shaping along rows, 335–336
- shawl collars
 - horizontal, 235–236, 243–249
 - vertical, 236–242
- short-row technique, 236
- short sleeves, 203–204
- shoulder area
 - seams, 262–263
 - shaping, 79–80, 99
- silk, 39
- single-taper garments, 32–33, 114–116
- sisal, 41
- skirts
 - A-line, 163–164
 - straight, 154–162
- sleeveless yoke pullovers, 189
- sleeves. *See also* cuffs
 - classic set-in tapered sleeve, 81–89, 92–93
 - converting measurements to stitches and rows, 64
 - decreases, 87, 174
 - gathered top sleeve, 199–202
 - increases, 83
 - lantern sleeve, 197–198
 - measurements, 18–19, 93
 - pleated top sleeve, 202
 - seams, 269–270
 - short sleeve, 203–204
 - straight sleeve, 195–197
- worksheet, 92–93
- slip-stitch patterns, 53
- sloped bind-off, 77
- smiling diamonds pattern, 58–59
- square necklines, 216–217
- stitch gauge, 61–62
- stitch patterns. *See* pattern stitches
- stockinette stitch
 - basic, 45
 - twisted, 50
- straight skirts, 154–162
- straight sleeves, 195–197
- stranded knitting, 53
- stretch and drooping, 74, 110
- swatches, 60–61
- symbols, international, 58–59
- synthetic fibers, 42
- tapered dresses, 166–171
- tapered sleeves, 81–89
- three-needle bind-off, 263
- three-row buttonholes, 272
- turtlenecks, 229
- Twist Flowers Pullover, 274–281
- twist stitch patterns, 51
- twisted stitches, 50
- V-necklines, 139, 220–223
- vegetable fibers, 40–41
- vicuña, 39
- waistbands, 158
- whipstitch seams, 249, 266
- women, measurements and sizing, 330
- wool, 37–38
- Wool Products Labeling Act, 38
- yardage, calculating, 65
- yarns
 - calculating yardage, 65
 - fiber types and properties, 36–42
 - sources, 341
 - twist and plies, 43
 - weight categories, 44
- yoke collars, 233
- zippers, 273



DESIGN **STUNNING** KNITWEAR for a **PERFECT INDIVIDUAL FIT!**

From the initial spark of inspiration to the sewing of the last seam, Shirley Paden now lays out an expert foundation of the knitwear design process. *Knitwear Design Workshop* offers a complete guide for creating one-of-a-kind garments including:

- How to identify the right yarn for particular garment design and pattern stitches
- Lessons on how to design double-tapered, single-tapered, and reverse-tapered garments with sleeves or sleeve caps that fit
- How to best use a stitch pattern to achieve the finished look
- A clearer understanding of commercial pattern instructions and how to modify them for your perfect garment
- Ways to improve your attention to detail with a meaningful test swatch
- Stronger knowledge of proper body or garment measurements
- And much more!

Plus, Paden demonstrates her master techniques through four new projects, taking knitters beyond commercial patterns and into designing their own traditional knitwear or creating stunning works of wearable art. A must-have reference for your knitting library!

ABOUT THE AUTHOR

Shirley Paden is the owner and founder of Shirley Paden Custom Knits. Her designs and articles have appeared in *Interweave Knits*, *Knitters*, and *Vogue Knitting*. She has been featured in the Interweave Knits Designer Interview series, in the Vogue Knitting Designer Notebook series, and on HGTV. Shirley also teaches and lectures on various aspects of handknitting, including lace, entrelac, cables, color knitting, and finishing techniques. She lives in New York City.



SHIRLEY PADEN

www.ShirleyPaden.com

