



Nina's Sweater Class

Lesson 1: Swatching and Taking Measurements

Knitting the Swatch

A swatch is simply a little square of knitting that allows you to identify what fabric is going to work best for your design. The swatch that you identify as the right fabric will also provide you with invaluable information that you will need to ensure the correct fit for your sweater. If you are on the fence about what sort of yarn you will be using to knit this sweater, you may swatch with several yarns to narrow the choice down. Once you have identified the yarn you want to use, you will be swatching with a few needle sizes to decide which one yields the fabric that will work best for your sweater's purpose.

Knit your swatches over a reasonable number of stitches: for fingering weight yarn, at least 48; for sport, at least 42, for dk, at least 36, for worsted, at least 30, for bulky, at least 24. This will ensure that your swatches are wide enough to measure your gauge accurately. Begin with a few rows of garter stitch (knit every row) to prevent curling, and then work in stockinette stitch, keeping the first and last three stitches in garter to prevent curling. (A little curling is fine but it's easier to measure your gauge if the swatch lays relatively flat!) Work your swatch with the recommended number of cast on stitches (or a few more!) until it is at least 5" long. Knit a few more rows in garter stitch and then bind off using the stretchiest bind off you know. Some good ones are Elizabeth Zimmerman's sewn bind off (described in many of her books), or Jeny's Surprisingly Stretchy Bind Off, available online at <http://knitty.com/ISSUEfall09/FEATjssbo.php>.

I recommend swatching with at least three different needle sizes. Use the one you usually prefer for the weight of yarn you are working with, and then either one size smaller and one size larger, or the next two larger sizes if you are aiming for a loose, drapery fabric, or the next two sizes smaller if you are aiming for a firm fabric. Different needle materials *may* affect your knitting. I like acrylic needles but some knitters find that they don't react well with certain fibers, so I switched needle types midway through each size section of my gauge swatch to see which I liked working with the best. It is essential that you use a needle size and material that is comfortable for YOU to knit with. Different fibers will affect the finished fabric as well. Since I'm using superwash, I anticipate needing to knit at a tighter gauge than non-superwash so that the fabric will hold its shape. I would do the same if I were knitting with silk, modal, or alpaca. If I were knitting with a cotton/microfiber blend, non-superwash wool or a non-superwash wool blend (where the percentage of non superwash wool is greater than 50) I would use a larger needle.

I use eyelets or purl stitches in each section to indicate what needle size I used to knit that section. I've made the mistake of thinking, "oh, I'll remember what needle I used" and then picked up the swatch a few weeks or months later with no certainty of the needle size--too many times now. So either mark them on your swatch or write them in a notebook or on your pattern so you'll remember.

Always, always, ALWYAYS!!! wash your swatch. Follow the instructions on the label that the yarn came in and wash the swatch exactly as you intend to wash the garment. So, if you're working in cotton, intending to machine wash and dry your sweater, make sure to machine wash and dry your swatch, with a load of laundry, on the same settings you will use for the sweater. If you are using alpaca, hand wash and lay the swatch out to dry flat, just as you will wash and dry the garment. If you are working a lace sweater, pin out the swatch to give it an aggressive blocking just like you will need to do with the sweater when you wash it. If you neglect these steps, you run a serious risk of your garment only fitting correctly until you wash it! Fibers are known to relax or shrink due to washing and drying, so it is crucial that you wait until the swatch has been washed and dried before you attempt to measure the gauge.

If you are using a fiber that tends to stretch—like alpaca, silk, or superwash wool, it can be a good idea to hang your swatch with a little weight on it for a few days to simulate how the fabric of your finished piece will stretch while wearing.

A note on cotton and cotton blends:

If these yarns are machine washable, bear in mind that your fabric will shrink a bit on the first few washes. It is essential that you use a needle size that is comfortable for you to knit with, and to wash your swatch the same way you intend to wash your garment before you measure your gauge. If you knit your cotton tightly and then the stitches shrink even more on your first wash, you will end up with an armour-like garment and potential wrist pain from wrestling all those little stitches.

Once you are done swatching, washing, and drying, you will choose the fabric that will be best for your sweater. This is simply the swatch that feels the best and fits the best with the purpose for your sweater that you identified in the introductory lesson. When you have chosen the swatch, make a note of which needle you used to knit it; this is the needle you will be using to knit your sweater. Make a note of it on these

worksheets:

Needle size: _____

You are ready to measure and calculate your gauge!

Measuring Gauge

You will need:

Your chosen swatch

Measuring tool (a ruler, tape measure, or a view sizer)

A four-function calculator (one that does addition, subtraction, multiplication, and division). Of course this is optional if you are good with arithmetic.

Using a ruler or a gauge measuring tool, count the number of stitches in the same horizontal ROW that make up 4 inches. There can be fractional stitches (like a half or quarter stitch) included in this number. Fill in your result below.

_____sts in 4 inches (X)

Divide this number by 4 to get your STITCHES per inch (it is fine if there is a decimal at the end of this number as well!)

$X / 4 =$ _____sts per inch (S)

Now, rotate your measuring tool and count the number of stitches in the same vertical COLUMN that make up 4 inches—in other words, the number of rows. This number can be fractional as well.

_____Rows in 4 inches (Y)

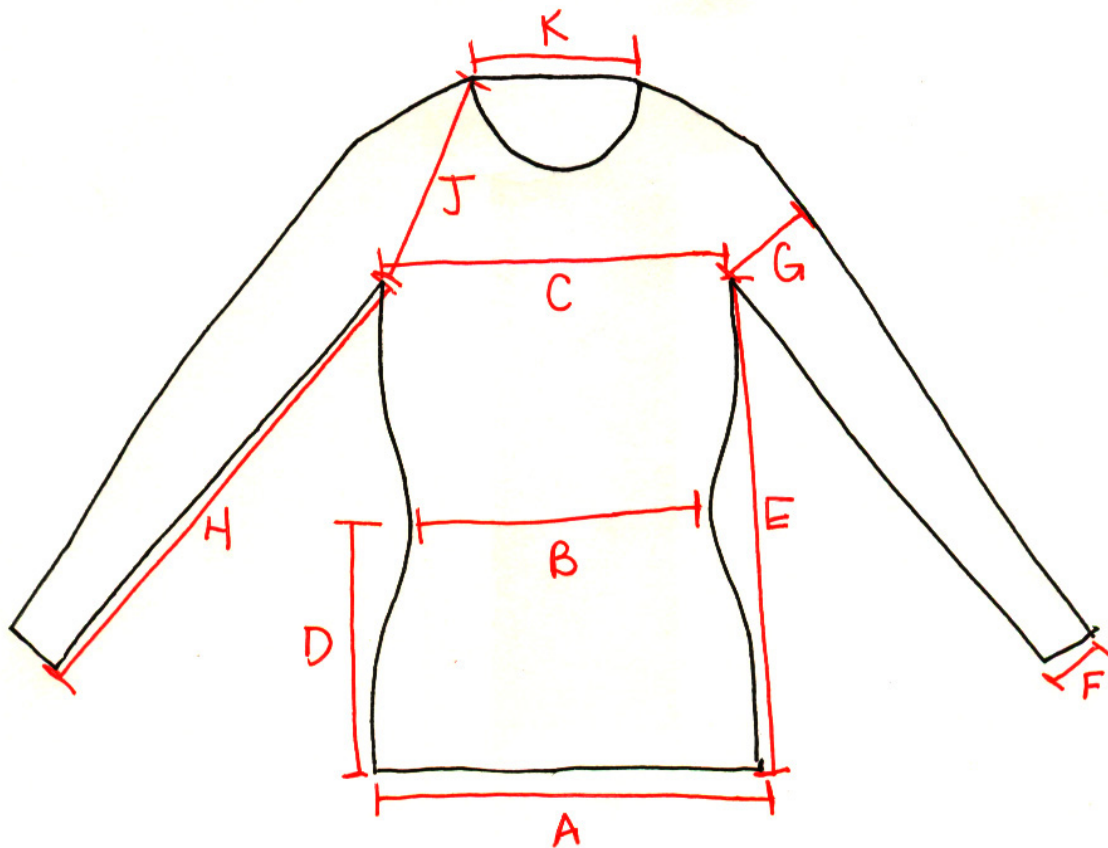
Divide this number by 4 to get your ROWS per inch (it is fine if there is a decimal at the end of this number as well!)

$Y / 4 =$ _____Rows per inch (R)

The values (S) and (R) are your GAUGE and will be used for all further calculations in this pattern.

Planning the Dimensions of your Sweater

The measurements you take for this portion of the lesson will be from your favorite sweater. It might be hand-knit, or it might be store-bought, or, if you've never had a sweater you love, it could be a sweatshirt or lighter pullover. It should be a top that you love the fit of, and that makes you feel great. If your favorite sweater is no longer with you (since the best clothes tend to die too young) or you have truly never had a top you really liked, it's ok—follow the schematic to measure your own body, estimating how you would like the garment to fit, to calculate your key numbers.



- A = _____ inches
- B = _____ inches
- C = _____ inches
- D = _____ inches
- E = _____ inches
- F = _____ inches
- G = _____ inches
- H = _____ inches
- J = _____ inches
- K = _____ inches

Lay your garment out flat and take the measurements indicated on the schematic. If there are any adjustments you care to make to your garment, such as lengthening the sleeves or shortening the torso, make them to these numbers. If you are taking measurements off of your own body, follow the schematic and measure over any garments you intend to wear under the sweater, such as a bra and a t-shirt.

Taking time to experiment with swatching will be worth it in the long run—it is what designing is all about! Enjoy this honeymoon period with your chosen yarns, because next week you will be embarking on a long-term relationship with them as you cast-on your sweater!