MY APPROACH TO SWEATER DESIGN

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Hello,

Thank you so much for enrolling in this virtual class with me, a space where I share some insights and behind the scenes of my process when designing and writing knitting patterns.

As you can imagine, this is a very special class for me, where I get to talk about my passion, what I go to bed thinking of, and what I wake up wanting to do.

Every designer has a different process, and there are so many ways that lead to a finished pattern. Whatever method you follow, it is good as long as it makes you feel confident, happy, and it leads to a pattern that others enjoy working from. Don't tie yourself to a norm, and you'll have fun discovering what best works for you.

This is how I do it.

FIRST: FINDING INSPIRATION

Inspiration is everywhere.   At least that's what everyone says?   Except sometimes… It's hard to find.

I try to take note in some way whenever I see something inspiring.   I keep notebooks with sketches, I take photos of people on the street wearing awesome sweaters... I have so many photos of the TV screen, of clothes I see a movie star wearing that I fall in love with.

I use Pinterest as a fundamental part of my creative process, a place where I can save ideas of styles, shapes, color and fit, for those days when I am not as inspired as others.

For some designers, it's all about being creatively free. Making whatever you feel like, whenever you feel like and not minding about what fashion dictates.

That's not totally the case with me. I am very inspired by Fashion, and I like to wear garments that are not only pretty, but that also have shapes, fit, colors of the latest trends.

I don't think all our knits need to be timeless classics. Especially in the current days, knitters get to finish many projects and like to be challenged with new designs all the time. So I try to be bold and go for some of the current shapes and styles.

Most fashion labels sells knitwear, and you will find lots of inspiration just by browsing their websites. To give you just an example, the brand Anthropologie adds items to their collection almost every week. They represent designers from all around the world with many varied styles, which can always spark your creativity and guide you in color and shape choices.

However, there are some designers that are truly inspiring to me when it comes to innovative knitwear. When you find those who inspire you, who really invite you to bend your mind trying to figure out how they did that, remember to check them out every now and then.

The exercise of looking at knitwear and trying to solve mysteries and constructions, has often lead to my most creative days, often coming up with different solutions, shapes, colors and stitch patterns that resemble in no way whatever inspired me that day.

If you ask me what's the most important part of my job, that one I fear the most, is to see a style I like or a trend I like, and to translate that into something that a knitter will want to knit.

PATTERN FEATURES THAT MAKE (MOST) KNITTERS HAPPY

Every knitter will have different tastes and needs, but I try to pay attention to what people like or they don't like about a pattern (mine or from other

designers) and of course I try to include these things (or as many as I can) in new designs.

I hope these help you too.

- Most knitters prefer Top-Down patterns to Bottom-up ones.

- They prefer seamless projects with little finishing required.

- Knitters REALLY enjoy putting colors together, so whenever a pattern challenges them to do this, they find it fun and exciting.

- Patterns that use up leftovers (in any amount) are very welcome.

FROM IDEA TO SAMPLE

When I am already full of inspiration, my design idea is complete, and I absolutely know what my dream garment will look like, the next step is to make it true. To knit a sample.

Where do I start?

I decide the construction method first. This will be a very important decision, and many of the other steps of the designing process will depend on this.

When building your own sweater, there are no limitations. Your fabric could be bent in a million ways, and you could come up with a new and unique technique! But understanding how some of the most used constructions work can open your mind to new possibilities.

Construction Methods

Let's imagine a sweater is a sort of tube.

If you wanted to knit a tube, you could start on one end or the other. In the same way, you could knit a sweater by starting from the top (the neck) and working downwards increasing the size of the tube to fit the shoulders, or you could start from the bottom (hips) and working upwards making decreases at the top to fit the neck.

But these are not the only possibilities. You could knit a tube by making different pieces and them seaming them together, and these pieces could be knit in ANY direction. It could even be a single piece seamed on one side.

You'll have many decisions to make. To make things more complicated, this tube will need sleeves too, so you will have to figure a way to include them in this equation.

There are some great books about construction techniques that you can use as reference if you wish to explore them more in depth, like

- Barbara Walker's Knitting from the top.

- Elizabeth Zimmermann's Knitting without tears.

Let's mention and discuss some:

RAGLAN SLEEVES

In this type of sweater, the sleeves extend to the collar and leave a diagonal seam down the yoke. It can be worked top-down or bottom-up, seamlessly or in pieces.   Usually the increases/decreases are worked in sets every 2 rows, but there are variations where this ratio can be modified, achieving different shapes.

CIRCULAR YOKE

In this type of sweater, the stop of the sleeve and the body organically merge into one single tube or 'cone' in the top of the sweater.   Instead of having all the shaping aligned in diagonal lines as with the raglan, in a circular yoke sweater the increases or decreases are evenly distributed around the yoke. This method is the most commonly used for color-work sweaters, but it also allows for being very creative with stitch patterns.
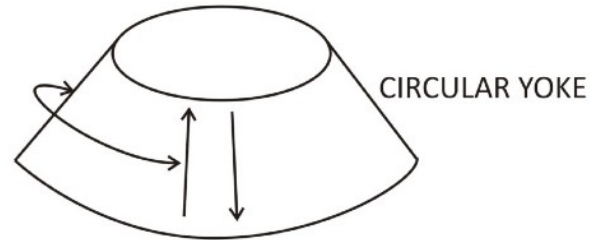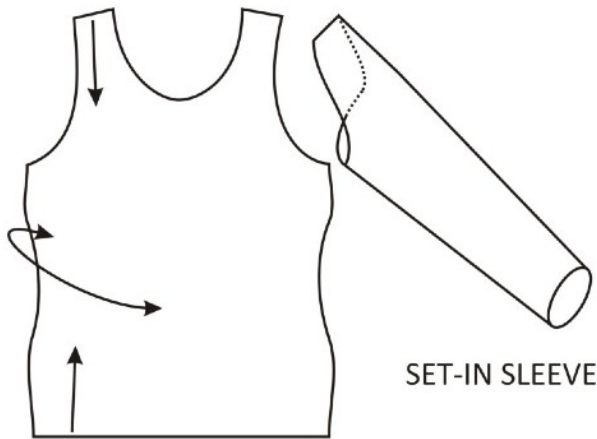

If the upper part of the sweater is shaped as a cone (with the base with a bigger opening and the top with a smaller one) you can think outside the box and imagine the endless possibilities: not only top-down and bottom-up, but also sideways, combined with raglan shaping, etc.

SET-IN SLEEVE

Maybe the most traditional way of constructing a sweater, it requires less planning ahead because you can treat the body as an individual piece, without worrying too much about the sleeves until you need to add them to the sweater.

Generally, the body is constructed as a vest, with shaping for the armholes, which gives many options, and it allows for small adjustments and modifications that can be much more detailed than with seamless yoke sweaters.

Since each piece is treated individually, you can tailor the neckline as you please, perfectly adjust the armhole depth to the exact required measurement. It may demand more writing, and it doesn't always suit the style of sweater you want to make. But in general, it gives you a little more freedom as a pattern writer.

SET-IN SLEEVE

The lack of shaping in the armhole makes this an ideal construction method when you want to use intricate stitch patterns. It is not always easy to include shaping when working a complicated cable, or a long lace pattern… But knitting the body of these sweaters is like knitting a blanket. You only have to pay attention to shaping at the front neck.

shoulder shaping
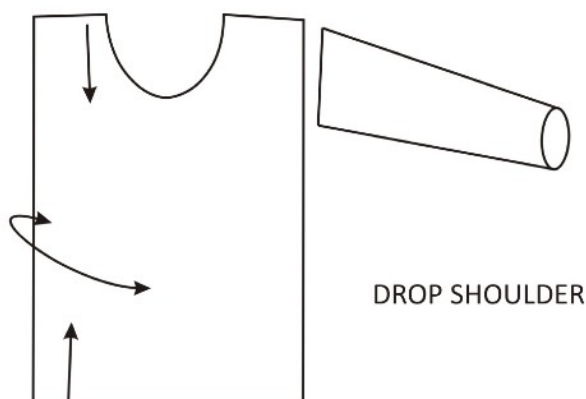MODIFIED DROP SHOULDER

DROPPED SHOULDERS

Dropped shoulders are probably the easiest construction method, if you want to keep the sweater really simple. The body is a tube with 2 slits for the armholes, and the sleeves are tubes that connect to these slits without any shaping at all.
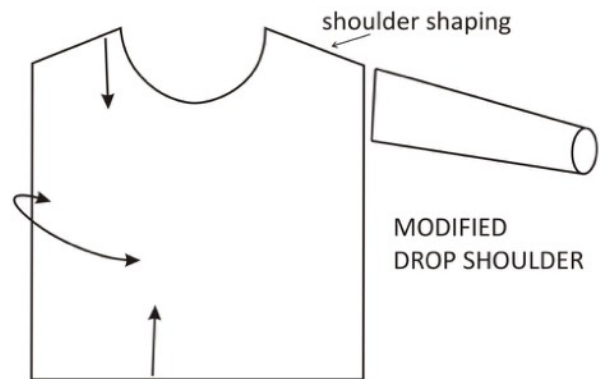
This sweater was very in-style back in the 80's, often associated with shoulder pads, mohair and lots of color. Then forgotten for many years.

During the decade of 2010's this style slowly came back in fashion, with a more refined shape and draped fabrics. And now in the 2020's, the 80's shape is back, with all the extra fabric and shoulder/sleeve fullness.

This is how a typical drop-shoulder sweater is constructed.

OTHER CONSTRUCTIONS

The possibilities are TRULY endless! Some other popular constructions are the Contiguous Method, Circular or Waterfall cardigans, Dolman sleeves… They all have something related to some of the constructions we discussed.

The most important thing you need to remember is that you don't have to stick to these. Try your own if you dare!

I like to make my sweater patterns top-down and seamless every time I can. These 2 features require a bit more work when writing, and maybe some more planning ahead, but you will make many more knitters happy.

Top-down seamless sweaters have the enormous advantage of allowing you (and the knitters) to try the sample on as you work on it, so adjustments and customizations are much easier to deal with. You might have knit many sweaters for you already

DROP SHOULDER

and you might know your body enough to know perfect length for you, but someone might be using your pattern for their first sweater, so they will feel confident knowing modifications are easy to make.

Having said this, this construction method does not always work with what you have in mind. There are some sweaters that just need to be constructed bottom up, or sewn in pieces... And of course, there are some knitters that just can't stand circular knitting. If this is the case, follow your heart and your design instinct! Knitters will follow your lead.

## TAKE YOUR MEASUREMENTS AND PLAN YOUR SAMPLE

Most of the times that I make a sample, I make it for myself, as I am going to model it. If you are knitting for yourself, it's very important to take your measurements properly to plan your sample accurately.

If you are knitting for a publication, then they'll probably tell you the model's size for you to use as reference.

My advice is to **take your measurements often** and on different days. Some days my bust is bigger than others, and so is my tummy. Sometimes even my hips get a bit smaller than others! So I recommend taking your measurements a couple of times before taking note of what size you will knit.

What are the important measurements to take?

1) **CHEST/BUST:** Measure around the fullest part of your chest/bust, not too tightly.

2) **WAIST:** Measure at the smallest circumference of your natural waist.

3) **HIP:** Measure at the widest part of your hip. Note: if you are making long garments, and your hips get wider at the point where they meet your thighs, you might want to take note of that measurement, as it will be the larger circumference in your sweater (tunic length).
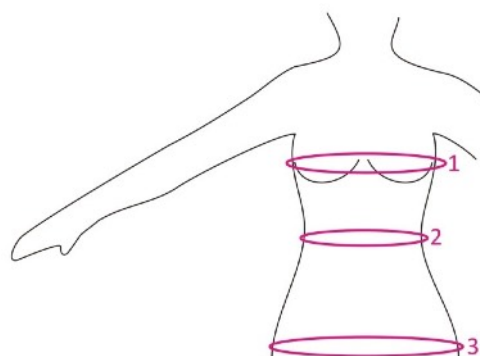
4) **UPPER ARM CIRCUMFERENCE:** Measure around the widest section of the upper arm.

5) **ARMHOLE DEPTH:** Measure from the tip of the shoulder bone down to the armhole.

6) **WRIST/CUFF:** Measure around the narrowest section of your wrist.

7) **SLEEVE LENGTH:** Measure from armpit to cuff with arm slightly bent.
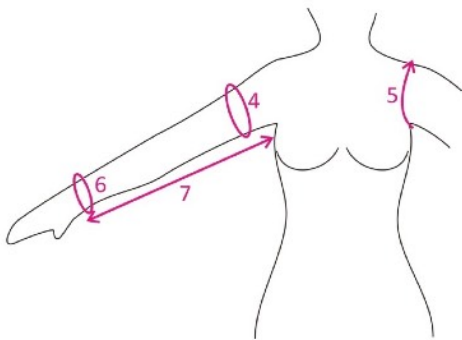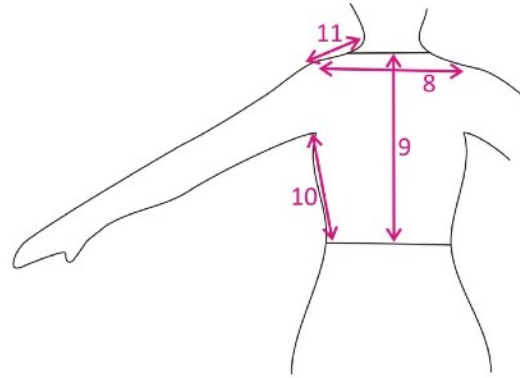
8) **CROSS BACK:** Measure from shoulder to shoulder.

9) **BACK WAIST:** Measure from the most prominent bone in your back neck to your natural waistline.

10) **ARMHOLE/WAIST:** (easier on a sweater) Measure from armpit to natural waist.

11) **SHOULDER:** Measure from the neck to the bone of your shoulder.

EASE

Taking your measurements, though, is not enough. Before you plan your sample, you need to consider **EASE**, which refers to the FIT of the sweater.

A sweater with NEGATIVE ease will be smaller than our body measurements, and it will fit TIGHTLY. The fabric will pull a little bit (or a lot!), and it will stretch to hug our shape with wear.

A sweater with POSITIVE ease will be larger than our body measurements, and it will fit LOOSELY. The fabric will drape and fold.

A sweater with NO EASE will have our exact body measurements, and it will fit CLOSELY (but not tightly) to our body.

Once you know your measurements (or the model's), once you've decided how much *ease* your garment will have, and once you've decided what construction method will use, it might be a good idea to make a small hand-drawn **schematic** with the final measurements of your sample.

This will help you see which calculations you need to make (how many stitches for each section, etc) and plan the different stages of your knitting.
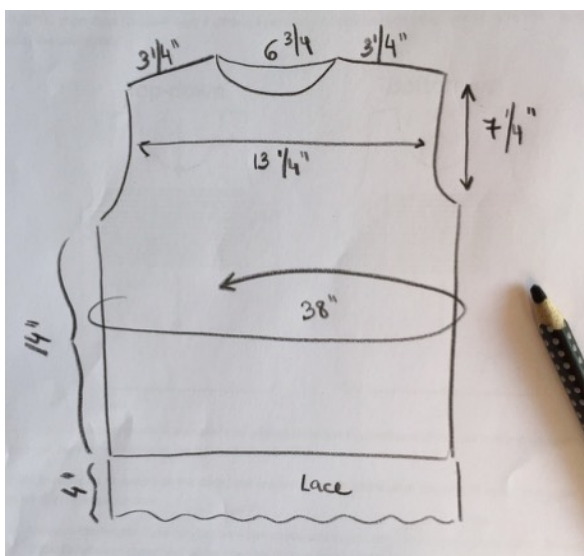
YARN CHOICE

So you have taken a big step forward, and many of the decisions are made. All you need to do is choose your yarn and **make a swatch to find out what your gauge is**.

Sometimes, this decision is made for us. In my case, I often have yarn in my stash that I want to design with. So all the creative process of coming up with a design is centered about a decision of yarn that has already been made. But the ideal situation would be to come up with a concept, then find the perfect material for it.

Choosing the yarn is very important and will determine the way the garment will look.

Deciding on the color is just the fun part of this decision. Knowing different yarns and understanding what their main features are, plays a great role in achieving good looking garments. Swatch different options and think carefully what you are going to use.

Consider:

- **Gauge:** How thick do you want your garment to be? Would you like to include many elaborate stitch patterns? Small gauge (fine yarns) allow for a lot of detailed shaping, and tailored fit. Fine knits are usually more flattering in all body shapes, but you will also have to knit for a long time, and probably many, many stitches. Thick yarns make quick garments, but they don't leave room for much shaping, or playing with stitch patterns. Knits might not be as flattering on all shapes, and you will need to use a lot more yarn than with finer gauges.

- **Fiber content:** What season is this knit for? Does it need to have a lot of drape or would it be better if it had more structure? Does it need sheen, halo? Do you want the stitch pattern to be perfectly

noticeable or would you rather it is a bit subdued? All these questions refer to the material you are working with, so make sure you consider them properly before buying/getting yarn for your project.

- **Color:** This is the fun part (at least for me), and it depends a lot on personal taste. I have no recommendations on what colors to use, but be careful when you use multicolored yarns. Make sure you swatch properly with them using the stitch patterns you plan to use, and make sure those multiple colors WORK for your pattern (not against it!). Multicolored yarns are magical, they can be absolutely striking and achieve the most unexpected results, but make sure they will not obscure your design.

- **Price** should also be considered whenever possible you can. Your knitters will try to use the same yarn as you did. Try to keep your design portfolio varied in price range, so you will make your designs more accesible and you will reach a wider audience too.

TAKING NOTES AS YOU KNIT

We have gone through the design part of the process… All the creative aspects of your design have been decided and now you have to do the work.

Once you have made your swatch and taken all the measurements you need for your sample, you can do the proper math to know how many stitches to cast on.

For example, let's take the example drawn on page 8.

Gauge is 5 sts and 7 rows per inch.

The design proposed is a <u>seamless</u>, <u>top-down</u>, <u>set-in sleeve</u> pullover, so the logical place start knitting is at the shoulders. You took your measurements, accounted for ease, and decided that the shoulder seam of this sweater (where you will start) needs to be 3¼" wide.

3¼" X 5 = 16¼ stitches.

You can round this number down to 16.

Then calculate the amount of stitches your upper back (based on the cross-back measurement) should have:

13¼" X 5 =66¼ stitches.

You can round this number down to 66.

Now that you know that the upper back has 66 sts, and each shoulder has 16 sts, you can calculate how many stitches the back neck should have:

66 - (16 X 2) = 34 sts

UPPER BACK - (SHOULDER X 2) = BACK NECK

All these numbers should be written down as you make progress on your sweater. Every little detail will help you write the pattern properly when you are done.

Some designers write everything down before even casting on. That's a very organized way of designing, it will also allow you to test your own instructions before asking someone else to do so, or allow you to work with sample knitters.

If you can't do that much planning in advance, and like me, you design as you go, make sure you always have a notepad and a pen with you.

Also, make sure you plan the order of your instructions… Think a way to organize them in a logical progression as you knit. I personally don't matter if at a first glance the instructions look too long. There's always time to make abbreviations and to summarize sections afterwards.

PROGRESSION OF INSTRUCTIONS FOR BACK
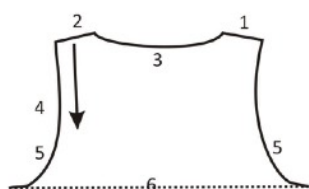
1) Cast on 16 stitches for one shoulder and knit a couple of rows. Put that on hold.

2) Cast on 16 st for other shoulder and knit a couple of rows.

3) Knit until you reach the end of a RS row and Cast on 34 st for the back neck. Place the shoulder 1 on the needles and join the whole thing.

4) Knit a certain length straight.

5) Start armhole increases (X st increased at the beginning and the end of the row for a certain number of repeats).

6) Put all stitches on hold and proceed to work the front (you'll join all the pieces afterwards to work the body in the round).

A good organization of your instructions is crucial when writing a pattern. Divide your instructions into easy sections. Make use of titles, subtitles…. If the knitter has to face a small task under a title and finish that step before moving on to the following one you will be helping them to organize their own knitting when following your pattern.

As I knit my own sample, I write step by step what pieces of the garment I have to tackle each time. Sometimes it is hard to predict where the complicated part of the pattern is… You just have to cast on and figure things out when you get to that point.

Remember, EVERYTHING can be written. Think that the only limitation is the space you have on the pages, but if we weren't expected to write a relatively compact pattern, we could give instructions for any piece, no matter how big. The key is to organize your instructions step by step.

There are moments in the knitting process when you will have to work on different shaping or a different process at the same time with something else. When this happens remember to be clear that you are giving directions for 2 different things. I usually say, for example:

> *Continue to work the body in pattern increasing for the waist every 8th following row until the piece measures 16" from the armhole.*
>
> *AT THE SAME TIME, when work measures 10" insert pockets by working the following way:*

DRAFT

The best way to learn how to write a pattern is by being brave and just writing a draft. That first step takes a lot of courage, and it's the most important one. But that rough draft can be shaped and polished until it is possible to read from its instructions and achieve a good looking garment.

So go ahead! Write down your process… Write everything you have in your head, and take a note of it all. You will be surprised at how much you have learned already by knitting other people's patterns.

Challenge yourself to come up with your own words. Try to think how YOU would give a knitter your directions. If you just follow what other people do and how they write it, you might be missing your true potential to express things in an even better way.

Once you finish writing down all your process, you will have a finished sample, and a draft in YOUR size (or the model's size).

This draft ideally include all the following information:

- Pattern name and Designer

- Sizes (e.g. Medium), including what size the sample is shown in. Information about ease.

- Finished measurements (this should be measured after blocking, and it should match the notes you made before starting as closely as possible).

- Materials (yarn used and amount of skeins/yards, needles, other notions necessary to complete the pattern).

- Instructions from start to finish.

- Finishing instructions (if there is any seaming, blocking, weaving in ends, etc., it should go here).

- Any accessory information (charts, schematic, photos, etc.).

- Glossary and special techniques used.

- Contact information.

GRADING

Grading is the term used for the process of transforming a pattern that is written for just one size into one that includes instructions for multiple sizes.

You will traditionally see graded patterns in a format similar to this one:

Knit 20 (22, 24, 26, 28, 30, 32) stitches

This means that the smallest size will knit 20 st, the second smallest 22, and so on…

Grab a calculator and start working out the numbers for your own pattern. You can do it! The first thing I recommend is going over your draft and identify those numbers that will have to be modified for different sizes. Sometimes, to make sure I don't miss any grading work, I highlight all the parts of my initial draft that need to be graded.

An example text (from Worsted Boxy):

FRONT:

Cast on 112 st.

Rows 1-4: *K1, p1*, repeat to end of row.

Row 5: Knit to the end.

Continue working in stockinette stitch until work measures 17 inches; 42½ cm from your cast on edge.

You can see I highlighted the sections that need to be modified for other sizes: The amount of stitches

to CO should be bigger for the bigger ones, and sometimes the length of the body should be adjusted too. So this section from my draft would look like this after grading the pattern:

FRONT:

Cast on 112 (120, 120, 120, 134, 134, 134) st.

Rows 1-4: *K1, p1*, repeat to end of row.

Row 5: Knit to the end.

Continue working in stockinette stitch until work measures 17 (17, 17, 19, 19, 20, 20) inches; 42½ (42½, 42½, 47½, 47½, 50, 50) cm from your cast on edge.

To calculate how many stitches we need for each size, we'll multiply our gauge by the measurement for each different size.

TABLES OF MEASUREMENTS

How do we know what all the different measurements are for the different sizes if we don't have a friend in every size that we can measure? We use standard measurements.

Even though not everyone has the same body measurements, and we are all special and unique, it would be difficult and impractical to write a pattern that gives directions on how to customize every feature of the knitter's body. So we use the Standard Tables of Measurements as reference to grade for sizes that fit the STANDARD body in a certain size.

There are probably dozens of tables out there, but I mostly use the ones provided by Craft Yarn Council of America.

Here's a link to the women's chart.

As you can see in this table, the measurements we need to grade are the same ones we needed to measure on ourselves before starting our sample.

Woman's size	X-Small	Small	Medium	Large
1. Bust (in.) (cm.)	28–30 71–76	32–34 81–86	36–38 91.5–96.5	40–42 101.5–106.5
2. Center Back Neck-to-Cuff	27–27½ 68.5–70	28–28½ 71–72.5	29–29½ 73.5–75	30–30½ 76–77.5
3. Back Waist Length	16½ 42	17 43	17¼ 43.5	17½ 44.5
4. Cross Back (Shoulder to Shoulder)	14–14½ 35.5–37	14½–15 37–38	16–16½ 40.5–42	17–17½ 43–44.5
5. Sleeve Length to Underarm	16½ 42	17 43	17 43	17½ 44.5
6. Upper arm	9 ¾ 25	10 ¼ 26	11 28	12 30.5
7. Armhole depth	6–6½ 15.5–16.5	6½–7 16.5–17.5	7–7½ 17.5–19	7½–8 19–20.5
8. Waist	23–24 58.5–61	25–26 ½ 63.5–67.5	28–30 71–76	32–34 81.5–86.5
9. Hips	33–34 83.5–86	35–36 89–91.5	38–40 96.5–101.5	42–44 106.5–111.5

Woman's (cont.)	1X	2X	3X	4X	5X
1. Bust (in.) (cm.)	44–46 111.5–117	48–50 122–127	52–54 132–137	56–58 142–147	60–62 152–158
2. Center Back Neck-to-Cuff	31–31½ 78.5–80	31½–32 80–81.5	32½–33 82.5–84	32½–33 82.5–84	33–33½ 84–85
3. Back Waist Length	17¾ 45	18 45.5	18 45.5	18½ 47	18½ 47
4. Cross Back (Shoulder to Shoulder)	17½ 44.5	18 45.5	18 45.5	18½ 47	18½ 47
5. Sleeve Length to Underarm	17½ 44.5	18 45.5	18 45.5	18½ 47	18½ 47
6. Upper arm	13½ 34.5	15½ 39.5	17 43	18½ 47	19½ 49.5
7. Armhole depth	8–8½ 20.5–21.5	8½–9 21.5–23	9–9½ 23–24	9½–10 24–25.5	10–10½ 25.5–26.5
8. Waist	36–38 91.5–96.5	40–42 101.5–106.5	44–45 111.5–114	46–47 116.5–119	49–50 124–127
9. Hips	46–48 116.5–122	52–53 132–134.5	54–55 137–139.5	56–57 142–144.5	61–62 155–157

So let's start the grading!

First, let's decide what size our sample is.

In the example pictured on page 8 I drew a sweater **size 34** that included 4" of positive ease (finished bust measurement: 38").

According to my usual size names, my sample size is going to be a size Small.

Then I should decide how many and what sizes I want to make.

For this example we'll use:

30 (**34**, 38, 42, 46, 50).

You already have the instructions for size 34 (small) written out, so let's find out what the other sizes should look like. Remember to add the proper ease for each size.

To find out what the <u>finished bust measurement</u> for each size is, add 4" to every size. The finished measurements are 34 (38, 42, 46, 50, 54)". Using the same gauge we used before for this example, we can multiply that number to know what the bust st count will be for each size: 170 (190, 210, 230, 250, 270) stitches at the bust.

Whenever you find a STITCH count that has to be graded, you need to find out what the proper measurement for that size is, and then multiply it by the gauge to learn what the proper st count. If you have to grade a measurement, then it's easier, you don't have to turn that into a number of stitches.

INSTRUCTIONS IN INCHES/CM VS ROWS

You might have noticed that I haven't written much about **Row Gauge**, and it's not that it isn't important! Directions could be written using an amount of rows instead of a unit of length, for example, when we give instructions to knit a sleeve.

However, when you give instructions in units of measurements, you give the knitter freedom to choose the yarn they want and adjust stitch gauge without having to worry about adjusting the row gauge too.

CONCLUSION

Working as a knitting pattern designer is something I couldn't have imagined. For many years I worked from other people's patterns knowing how to make my own improvised projects, but feeling rather intimidated about writing them down for others to knit … until someone pushed me to go ahead and give it a try. My first efforts were full of mistakes, I had many wrong calculations and my words were not absolutely comprehensible. But with time and patience, my drafts got better and better until one day I released one of them out in the open.

To my surprise, people could actually understand what I had written much better than I thought, and it encouraged me to try again.

I hope this talk might give you the same little push that someone gave me to write my first draft and that you might try and start sketching those ideas hiding in your mind. Every design inspiration is worth pursuing!

Thank you for joining my class!

Joji