How to calculate the right number of stitches

You have found a great stitch, either in knitting or crochet. You want to use it for your next project. Or you just want to make a simple shape item in one of the basic stitches. Maybe a scarf, cowl, a baby blanket, an afghan, poncho, bag, cushion cover etc.

Here's how you calculate how many stitches you need:

$$\frac{\text{Project width} \quad x \quad \text{Stitches in sample}}{\text{Sample width}}$$

Let's look at this in detail. First:

1. Decide what you will make and how wide it needs to be
2. Decide what kind of stitches you want to use
3. Select the yarn and hook/needles for your project
4. Knit / crochet a small sample piece, using the SAME yarn, hook/needles and stitch you will be using in the project

How to make the sample

Both knitting and crochet

If your project will be knitted/crocheted in the round, make also the sample in the round. After each row, carry the yarn loosely at the back to the start of the row and begin knitting/crocheting across the right side of the work again.

Crochet

- Take the yarn and hook you are planning to use for the project
  This does not work if you don't have the same size of the hook as for the actual project!
- Make a chain that is over 10 cm/ 4 inches long. A good length is 14 cm / 5½ in.
- Start crocheting using the stitches you want for your project.
- Crochet back and forth until the piece is at least 5 cm / 2 in long.

  The more different types of stitches you have in the stitch pattern, the longer it is good to make the piece. This is because you need to have the stitch pattern be even and not affected by the starting chain.

Knitting

- Take the yarn and needles you are planning to use for the project
  This does not work if you don't have the same size of knitting needles as for the actual project!
- Cast on enough stitches that you work is over 10 cm/ 4 inches wide. A good width is 14 cm / 5½ in.
- Start knitting using the stitches you want for your project.
- Knit back and forth until the piece is at least 5 cm / 2 in long.

  The more different types of stitches you have in the stitch pattern, the longer it is good to make the piece. This is because you need to have the stitch pattern even and not widening anymore as it normally doeas after the first few rows.

Measuring

- After you have the sample piece made, spread it out as it would be in the final product. Don't stretch it. Use pins to mark an even area of stitches. Do NOT use the edges of the piece.
- Count how many stitches there are between the pins.
- Measure the width from pin to pin.

Examples -crochet

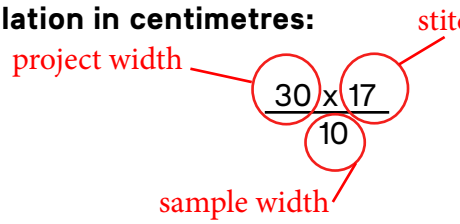
(Examples for knitting start on page 4)

1. In the first example we calculate how many stitches we need for a scarf that will be 30 cm/12 in wide.

The euro coin is in the picture just to give an idea of the size! Please note that 30 cm and 12 inches are not exactly the same. **Select one set of measurements only!**

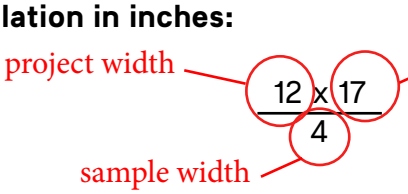
- 17 doublecrochets between pins
- 10 cm / 4 in from pin to pin

Calculation in centimetres:



(30 multiplied by 17, divided by 10) . **Result:** 51 stitches for the project.

Calculation in inches:



(12 multiplied by 17, divided by 4) . **Result:** 51 stitches for the project.

2. In the second crochet example we calculate stitches for a baby blanket that will be 76 cm / 30 in wide.

We have a fan (shell) stitch pattern where each fan + the chain stitch in between fans is 4 stitches on the starting row. We need full fan shapes. I have marked 4 fans shapes between the pins, so that makes 16 stitches. It is 10 cm / 4 in wide.

Calculation in centimetres:

$\frac{76 \times 16}{10}$ (76 multiplied by 16, divided by 10) . **Result:** 122 stitches. HOWEVER, we need to have a number that divides evenly by 4, so you need to either take off 2 or add 2. I decide to have 120 stitches. That will give us 30 fan shapes on the row.

Calculation in inches:

$\frac{30 \times 16}{4}$ (30 multiplied by 16, divided by 4) **Result:** 120 stitches. This gives us 30 fan shapes on the row.

Examples - knitting

1. How many stitches do we need for a panel 45 cm / 18 in wide?
Select one set of measurements only, centimetres or inches!

- 22 stitches between pins
- 9 cm / 3.5 in from pin to pin

Calculation in centimeters:

$\frac{45 \times 22}{9}$ (45 multiplied by 22, divided by 9) . **Result:** 110 stitches for the project.

Calculation in inches:

$\frac{18 \times 22}{3.5}$ (18 multiplied by 22, divided by 3.5) . **Result:** 113 stitches for the project.

2. How many stitches do we need for a scarf that will be 30 cm/12 in wide. We want to use the seed/moss stitch.

- 20 stitches between pins
- 11 cm / 4.25 in from pin to pin

Calculation in centimeters:

$\frac{30 \times 20}{11}$ (30 multiplied by 20, divided by 11) . **Result:** 54.5 stitches for the project but since you can't have half-stitches, I choose to use 54 stitches. Moss stitch is best worked with an even number of stitches.

Calculation in inches:

$\frac{12 \times 20}{4.25}$ (12 multiplied by 20, divided by 4.25) . **Result:** 56.5 stitches for the project but since you can't have half-stitches, I choose to use 56 stitches. Moss stitch is best worked with an even number of stitches.