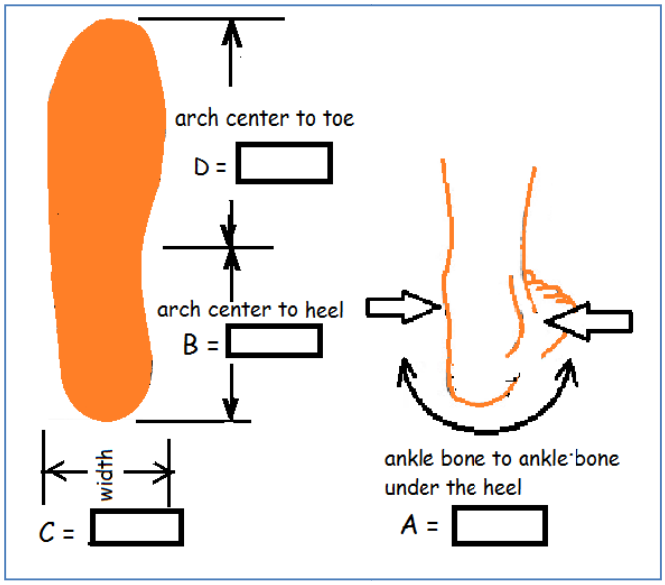
Measurements:



The first step in making these slippers is to measure the size of the foot. Four measurements are needed Measure to the nearest ¼" or the nearest tenth of a centimeter. (A metric tape has centimeters divided into tenths, which makes the math easier.)

A. From the top of the ankle bone down under the heel to the top of the ankle bone on the other side.

B. From the heel to the middle of the arch.

C. The width of the foot at the widest part. You may want to add ½" to 1" (1 to 3 centimeters) to this measurement for more ease. The amount of ease your slipper will have will vary with the stitch you choose. A stretchy stitch won't need as much ease, while a firmer stitch will require more. The amount of ease required also depends on how snug or loose you like your slipper to fit. Adding no ease will make the slipper snug and close fitting. Experience will tell.

D. From the middle of the arch to the toe.

Usually B and D will be about equal. If you want to add 1/2 to 1 inch "grow room," add half of the "grow room" to B and half to D.

Record these here: A._____ B._____ C._____ D._____. Make sure to measure carefully so that the slipper will turn out the right size.

Gage Calculation:

Now you need to make a swatch with your chosen yarn, stitch, and knitting board. I recommend casting on at least 12 pins, more for smaller gauge boards, and knitting for about 3-4 inches. There are 4 numbers you need to keep track of, number of pins, number of rows, width and length. Remove the swatch by binding off with a crochet hook (see step #3 in the pattern).

Record the number of pins _____ and number of rows _____

Measure the width and length of the knitted piece and record the numbers here:

Width _____ and Length_____

Now calculate the number of pins per inch. Divide the number of pins by the width and record the pins per inch.

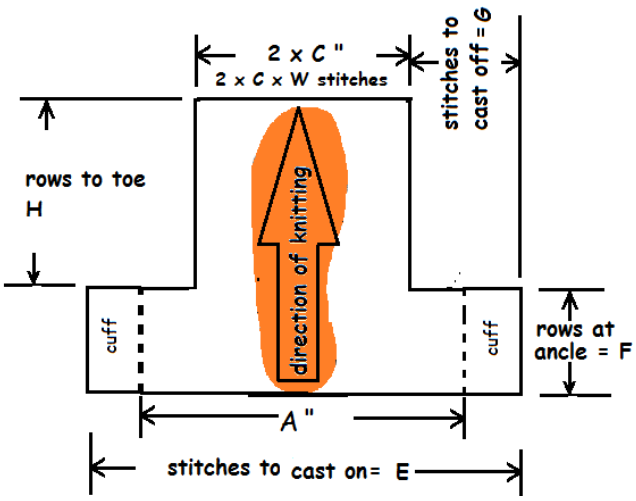
W = number of pins / width = _____

Next calculate the rows per inch and record it here

L = number of rows / length =_____

Do NOT round anything off yet. And don't forget you have to convert fractions. Decimal equivalents for common fractions (to help with calculations): 1/8=0.125 1/4 =0.25 3/8=0.375 1/2 =0.5 5/8=0.625 3/4=0.75 7/8=0.875. But if you used centimeters you only need to put down the number of whole centimeters, the decimal point, and count the number of tenths. Make sure to measure carefully so that the slipper will turn out the right size.

Stitch and Row Calculations:



The picture at the left shows the shape you will be knitting. The sole of your foot is drawn to help identify the parts of the slipper. It is NOT drawn to scale and does not show the shaping of the toe

1) Multiply (A) by (W) to get the minimum number of stitches to cast on and record this here:_____ This is the number to use for (E) if you a want a "footie" style slipper with no cuff, and you did not add any ease to (C). If you added ease or, or want a cuff multiply the size of the cuff (or amount of ease) by (W) , double that number and add it to the number recorded above. Round to the nearest whole number.

Record this here: E = (A * W) + (cuff * W * 2) =_____.

2) Multiply (B) by (L) to get the first number of rows to knit. Round to the nearest whole number. Record this here: F._____.

3) Now we calculate the number of stitches to cast off by subtracting the number of stitches needed at the ball of the foot from the number of stitches cast on. Multiply (C) by (W), double it and record this number here:_____. Subtract this number from the total number of pins cast on (E). and record here:_____ This is the total number of stitches that will be cast off, but we cast off half at each end so divide the last number 2. Record this here:

   G = E - (2 * C * W) =_____.

4) Last we calculate the number of rows to finish the slipper. Multiply (D) by (L). Record this number here:_____ Subtract 3 from this number for the 3 decrement rows that shape the toe. Record this here:

   H = (D * L) - 3 = _____.

Sample Slipper: For those, like me, who like to "see" what they are doing, here's an example of using the calculations to make a slipper on a fine gauge board with worsted weight yarn. First I'll list the measurements and then show the calculations step by step.

1. Foot Measurement: A=7.5", B=3", C=3", D=3.75"

2. Swatch Measurements:

   W=16 pins / 4 inches = 4 pins per inch

   L = 13 rows / 2.5 inches = 5.2 rows per inch

3. Cast on stitches: (A) * (W) + (cuff*W *2) Assuming a 1 inch cuff we need 4 pins per cuff and there are two cuff sections, so we need 8 pins for the cuff.

   E = (7.5 * 4) + 8 = 38

4. First set of rows to knit. (B)* (L)

   F = 3 * 5.2 = 15.6 which rounds to 16 rows

5. Bind off this many stitches from each end.

   Total stitches to bind off = [E - (2 *C * W)] = 38 - (2 * 3 * 4) = 38 - 24 = 14

   G = 14/2 = 7 stitches bound off at each end

6. Rows to knit before starting decreasing.

H = (D * L) - 3 =(3.75 * 5. 2) - 3 = 19.5 - 3 = 16.5 or rounding off

H = 16 rows