

Short Row Heel Formula

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You can easily figure out how many stitches to use for your own short row heel and then work it using the following formula. I'll give you a stockinette version and a garter stitch version here, and help you find the numbers you need for your own sock.

1. Figure out how many stitches you will use to work the heel.

For most people, using 60% of the total sock stitches for the heel will give a well-fitting result, but you may find you want to use a different percentage. You may find 50% to be adequate, or you may want to use 70% of the total stitches for a deeper heel. Calculate your heel stitches below:

Your desired percentage	x	Total sock stitches	=	Number of Heel Stitches (expressed as the variable H)
0._____	x	_____	=	_____

2. Figure out how far to decrease with short rows.

The object is to arrive at the number of stitches that will be left unwrapped in the middle between two equal sections of wrapped stitches. You may need to round N up or down to arrive at two equal numbers for the wrapped stitches.

Number of Heel Stitches (H)	/	3	=	Number of Stitches Left Unwrapped (expressed as the variable N)
_____	/	_____	=	_____

3. Figure out how many stitches to wrap for each side.

$(H - N) / 2 = U$, where U is the number of stitches to wrap on each side of the unwrapped stitches.

$U(\text{left}) + N + U(\text{right}) = H$ If your numbers do not exactly add up to H, then adjust N by 1 stitch up or down so that U(left) and U(right) are equal. Fill in your numbers below:

U(left) = _____

N = _____

U(right) = _____

4. Now you are ready to knit your heel. If necessary, adjust your stitches so that the number you have on your needle is equal to H. Begin with the right side facing.

Stockinette Stitch Version

Row 1: Slip 1 stitch purl-wise, Knit **(H-2)** stitches, slip the next stitch/wrap the yarn around it/return it to the left needle and turn the work.

Row 2: Leaving the slipped stitch on the RH needle, Purl **(H-3)** stitches, slip the next stitch/wrap the yarn around it/return it to the left needle and turn the work.

Continue working Rows 1 and 2 increasing the number of stitches knit between wraps by 1 until the number expressed by **(H-___)** is equal to **N**, the number of unwrapped stitches. This should be a RS row. Turn to the WS and Purl **N** stitches then slip, wrap, and turn. The last wrapped stitch will now have been wrapped 2 times.

To increase, beginning on the RS, work the following (s/w/t means slip, wrap, and turn):

Row 1: Leaving the twice wrapped stitch on the RH needle, Knit **N** stitches, s/w/t

Row 2: Leaving the wrapped stitch on the RH needle, Purl **(N+1)** stitches, s/w/t

Continue working Rows 1 and 2 increasing the number of stitches knit between wraps by 1 until the number expressed by **(N+___)** is equal to **(H-1)**, then wrap the last stitch on the needle and turn. You should be ready to work a RS row. All wrapped stitches have been wrapped twice, and you are ready to knit across all heel stitches **(H)** and then proceed to work the instep and sole once again in the round.

Garter Stitch Version

Row 1: Slip 1 stitch purl-wise, Knit **(H-2)** stitches, slip the next stitch/wrap the yarn around it/return it to the left needle and turn the work.

Row 2: Leaving the slipped stitch on the RH needle, Knit **(H-3)** stitches, slip the next stitch/wrap the yarn around it/return it to the left needle and turn the work.

Continue working Rows 1 and 2 increasing the number of stitches knit between wraps by 1 until the number expressed by **(H-___)** is equal to **N**, the number of unwrapped stitches. This should be a RS row. Turn to the WS and Purl **N** stitches then slip, wrap, and turn. The last wrapped stitch will now have been wrapped 2 times.

To increase, beginning on the RS, work the following (s/w/t means slip, wrap, and turn):

Row 1: Leaving the twice wrapped stitch on the RH needle, Knit **N** stitches, s/w/t

Row 2: Leaving the wrapped stitch on the RH needle, Knit **(N+1)** stitches, s/w/t

Continue working Rows 1 and 2 increasing the number of stitches knit between wraps by 1 until the number expressed by **(N+___)** is equal to **(H-1)**, then wrap the last stitch on the needle and turn. You should be ready to work a RS row. All wrapped stitches have been wrapped twice, and you are ready to knit across all heel stitches **(H)** and then proceed to work the instep and sole once again in the round.