

# Transmutation

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## Notes

Transmutation, in alchemy, is the conversion of base metals into gold or silver. More generally, it is used to describe a change to a higher form - for example, leftover sock yarns turning into a pretty pair of scrappy socks.

These socks are worked from the cuff down, with a reinforced heel flap and triangular gusset under the sole. The stranded pattern is a 6-stitch repeat, so naturally all floats are short (5 stitches or fewer).

You can use as few or as many colours as you want. If you use only two colours, it should be possible to carry the unused yarn to prevent having extra ends to weave in; otherwise, I highly recommend looking into some “weaving in ends as you go” methods. My preferred method is to hold the end in my other hand and catch it on every other stitch at least 5 times, like catching a float in stranded colourwork. When joining a new colour, I pre-weave the starting end in the previous round.

There are 5 sizes: XS (S, M, L, XL), with 60 (66, 72, 78, 84) stitches per round. The sample socks are shown in size S.

The stranded pattern is charted only. You may use any technique you prefer for knitting a small circumference in the round.

## Supplies

A total of 100 g / 460 yds sock yarn (fingering weight, wool/nylon mix), in at least 2 colours

- Each “stripe” uses approximately 3-4 g or 12-18 yds of yarn; the heel and gusset stripes will need more
- If you plan to use the same yarn for the cuff, heel, and toe, I recommend having at least 50 g of it to be safe

2.5mm (US1.5) needles, or size needed to obtain gauge

Stitch markers

Yarn needle

## Abbreviations

**st(s)** = stitch(es)

**BOR** = beginning of round

**k** = knit

**p** = purl

**sl** = slip 1 stitch purlwise with yarn to WS

**tbl** = through the back loop

**p2tog** = purl 2 together

**k2tog** = knit 2 together

**ssk** = slip 1 knitwise, slip 1 knitwise, knit slipped stitches together through back loops

**RS** = right side

**WS** = wrong side

## Gauge

8 stitches and 11 rows = 1 inch / 2.5 cm in single-colour stockinette, and 8 stitches and 9 rows = 1 inch / 2.5 cm in stranded colourwork. Row gauge is not important, but your stitch gauge for stranded and single-colour knitting should be in the same ballpark.

## Instructions

Charts are located at the end of the document. There are two versions of the chart - use whichever one is easier on your brain for a particular repeat, depending on if you're transitioning from a light colour to a dark one, or vice versa.

### Cuff

Using a stretchy cast-on of your choice, cast on 60 (66, 72, 78, 84) sts. Join for working in the round, and add a BOR marker if desired. The cuff is worked in twisted rib as follows:

**Twisted rib:** \*P2, k1tbl,\* repeat from \* to \* until BOR.

Work in twisted rib for a total of 14 rounds, or until desired length.

### Leg

Start following the chart, working the 6-stitch pattern repeat 10 (11, 12, 13, 14) times in each round.

The first 3 rows of the chart are stockinette in your cuff yarn (the "old colour"). On row 4, introduce a second yarn (the "new colour") and work in stranded colourwork for the rest of the chart. At the end of the chart, you may cut the "old colour". On the next repeat of the chart, the "new colour" becomes the "old colour", and you will introduce a third yarn on row 4, and so on for subsequent chart repeats.

Stop once you reach the desired leg length, ending after row 1. This is the yarn that you will be using for the heel; plan ahead if you want it to match the cuff.

## Heel Flap

Turn so that WS is facing you, and work the heel flap over the next 31 (31, 37, 37, 43) heel sts. The heel flap is worked flat (in rows); the remaining 29 (35, 35, 41, 41) instep sts are put on hold. Adjust your needles/markers accordingly.

**Row 1 (WS):** K1, p29 (29, 35, 35, 41), k1. Turn.

**Row 2 (RS):** K2, \*sl1, k1,\* repeat from \* to \* until 1 st remains, k1. Turn.

Work these two rows a total of 18 (20, 22, 24, 26) times, or until desired length.

## Heel Turn

The heel turn begins on a WS row, and is worked flat. Note that the slipped stitch pattern from the heel flap continues into the heel turn.

**Row 1 (WS):** Sl1, p17 (17, 19, 19, 23), p2tog, p1, turn.

**Row 2 (RS):** Sl1, \*sl1, k1\* 3 (3, 2, 2, 3) times, ssk, k1, turn.

**Row 3 (WS):** Sl1, p until 1 st before gap, p2tog, p1. Turn.

**Row 4 (RS):** Sl1, \*k1, sl1\* until 1 st before gap, ssk, k1. Turn.

**Row 5 (WS):** Sl1, p until 1 st before gap, p2tog, p1. Turn.

**Row 6 (RS):** Sl1, \*sl1, k1\* until 1 st before gap, ssk, k1. Turn.

Repeat rows 3-6 until all stitches have been used, ending after row 4 or 6. Do not turn after the final row. 19 (19, 21, 21, 25) stitches remain.

## Gusset Setup

In this section, we pick up stitches and place markers for the gusset, which is located under the sole.

### Setup Round 1

Pick up and knit 18 (20, 22, 24, 26) sts along the side of the heel flap (or 1 st for every 2 heel flap rows). To pick up along a garter edge, slide your left needle through all the purl bumps on the edge, and knit them. The BOR is here, at the beginning of the instep. Knit across instep (this is row 2 of the chart)\*. Pick up and knit 18 (20, 22, 24, 26) sts along the other side of the heel flap, or the same number as the first side. Knit to BOR.

*\*Optional tip: On the first instep row after the heel, I like to pick up an extra loop from each corner (between the heel flap and the instep) and knit it together with the first or last instep stitch, to eliminate gaps.*



To recap, you have 29 (35, 35, 41, 41) instep sts. On the sole side (which includes the gusset sts), you now have 55 (59, 65, 69, 77) sts, or a different number if you picked up a different number of gusset sts.

## Setup Round 2

Knit across instep (this is row 3 of the chart). K15 (15, 18, 18, 21), place gusset marker 1, ssk, k to 17 (17, 20, 20, 23) sts before BOR, k2tog, place gusset marker 2, knit to BOR.

## Gusset

### Round 1

We have now arrived at the first stranded round after the heel. Introduce the new colour and knit across instep according to row 4 of the chart.

On the sole side, work according to row 4 of the chart, starting with column 6 (since the instep ends after column 5), until you reach gusset marker 1. Knit, starting with the old colour and alternating colours on every stitch, until you reach gusset marker 2. Now follow the chart again - starting with column 4 (4, 1, 1, 4) - until BOR. If everything has gone correctly, you should end after a complete pattern repeat.

You might have noticed that we skipped a stitch in the chart after the gusset. This is because the gusset will ultimately be decreased down to a single stitch, so we need to leave it one stitch's worth of space to maintain pattern continuity after the gusset.

### Round 2 (decrease round)

Knit as established until gusset marker 1. Ssk with the old colour; knit until 2 sts before gusset marker 2, making sure to use the same colour sequence as the round below (to form vertical stripes); k2tog with the old colour.

Continue to repeat rounds 1-2 until 3 sts remain between the gusset markers, ending after round 1. On the single-colour rounds, you don't need to worry about any of the colourwork instructions, but make sure to continue to do the decreases. The gusset decrease lines always use the old colour; within the lines, there are stripes, and outside of the lines, the stranded pattern should be symmetric.



Once you have 3 sts remaining between the gusset markers, work the gusset closing round below.

**Gusset closing round:** Knit as established until gusset marker 1. Work sk2p (a 3-to-1 decrease) as follows: sl 1 knitwise, k2tog, pass sl st over. Knit as established to BOR. Remove gusset markers.

## Foot

Now that you are back to your original stitch count, continue to follow the chart all the way around the sock, like you did in the leg section. Stop when the foot is

- 1.5 (1.75, 2, 2, 2.25) inches,
- 4 (4.5, 5, 5.5, 6) cm, or
- 17 (19, 22, 23, 25) rounds

short of the desired length, ending after row 1 (work additional stockinette rounds if you need additional length, but not a full repeat). As with the heel, plan your colours ahead of time if you want the toe colour to match the cuff/heel.

## Toe

You have 29 (35, 35, 41, 41) instep sts and 31 (31, 37, 37, 43) sole sts.

**Size S/L only:** Shift one stitch from each side of the instep to the sole, and knit the extra stitch to shift the BOR to the new start of the instep.

**Size XS/M/XL only:** Knit all instep sts. On the sole side: k1, ssk, k to 3 sts before BOR, k2tog, k1.

Now you have 29 (33, 35, 39, 41) sts on both the instep and the sole sides.

**Round 1:** K to BOR.

**Round 2 (decrease round):** K1, ssk, k to 3 sts before end of instep, k2tog, k1; k1, ssk, k to 3 sts before BOR, k2tog, k1.

Work these two rounds 7 (8, 9, 10, 10) times, until 30 (34, 34, 38, 42) total sts remain, and then work round 2 only 2 (3, 3, 3, 4) more times. 22 (22, 22, 26, 26) sts remain.

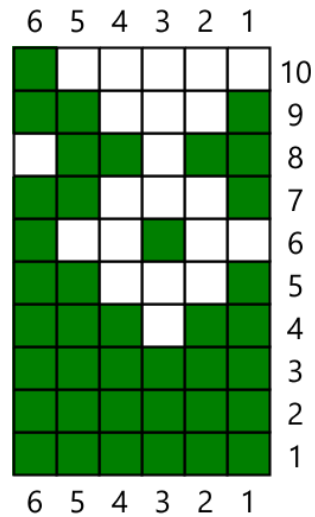
Cut yarn, leaving a long tail (8 inches / 20 cm), and graft the toe. You can eliminate “ears” by treating the 2nd and 3rd stitches from each end as a single stitch when grafting. (So when you “knit on” or “knit off”, you pass the needle through both stitches as if working a k2tog, and when you “purl on” or “purl off”, you pass the needle through both stitches as if working a p2tog.) This might be a little fiddly, but it has the effect of continuing the decrease pattern while grafting.

## Finishing

Weave in all ends (unless you've been weaving them in as you go!). Make a second sock. Block the finished socks.

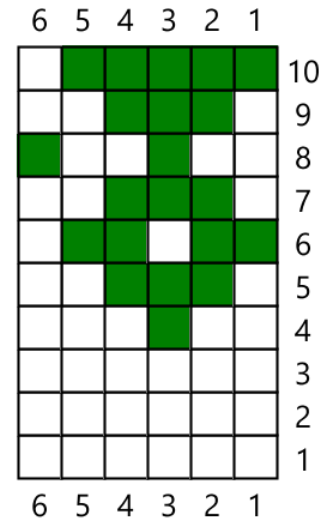
# Charts

Dark to Light



Knit with old colour  
 Knit with new colour

Light to Dark



Knit with old colour  
 Knit with new colour