

## Triple Helix

*all content (unless otherwise specified) by Jinger Roy (<http://jingersnaps.wordpress.com>)*



*Photo Credit: Spencer Bellaire, 2014*

This lovely mathy hat was inspired by the great Grumperina (<http://grumperina.com/knitblog/>) and her adventures in helical knitting ([http://grumperina.com/knitblog/archives/2008/06/helical\\_stripe.htm](http://grumperina.com/knitblog/archives/2008/06/helical_stripe.htm)), as well as by the gentle pestering of my mathematically-inclined friend and co-worker, Spencer, for whom it was created.

Three rows of ribbing, three colors of continuously spiraling helical striping, six-part decreasing in order to create diminishing hexagons in the spiral as it works its way up? This thing is practically an episode of *Schoolhouse Rock*. Three is a magic number, indeed.

This original hat was made to fit heads up to 24", and changes in size can be made easily by decreasing/increasing the number of stitches cast on in multiples of six.

### **Yarn:**

Brown Sheep Lamb's Pride Worsted (85% wool, 15% mohair blend, 190 yds. per skein), 1 skein each of M-75 Blue Heirloom (Color A), M-03 Grey Heather (Color B), and M-06 Deep Charcoal (Color C)  
*(Really, any good quality worsted-weight wool or wool blend will do.)*

### **Supplies:**

US size 8 (5.0mm) 16-inch circular needle  
US size 8 double-pointed needles  
stitch markers (in at least 3 different colors or styles)



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tapestry or yarn needle  
scissors

**Gauge:**

5 sts per inch on US 8 (5.0 mm) needles

**Pattern:**

CO 108 sts with Color A on circular needle. Join into round, being careful not to twist.

Knit in 1x1 ribbing (k1, p1) for 2 rounds.

Using stitch markers, divide stitches evenly into 3 sets of 36 sts. I found it helpful to use stitch markers that were all the same color here, in order to differentiate from the marker you're using to mark the beginning of the round and the stitch markers that will be used later to indicate the decrease sections. Using 3 distinct colors or styles will help to prevent a lot of confusion down the line.



For the setup round, knit the first 36 sts with Color A. When you reach the first stitch marker, drop Color A, join Color B and knit with it until the next marker. At this marker, drop Color B, join Color C and knit until you finish the round.

For the next round, continue knitting with Color C until you reach the first stitch marker. Then, drop Color C, pick up Color A (where it was conveniently left for you), and begin knitting to the next marker. Resist the temptation to twist the colors at the marker or to pull aggressively at that first stitch. Just drop the color you're working with, pick up the one waiting for you, give it a tiny tug to even out the tension, and get going. You'll continue to do this same maneuver over and over again, spiraling the colors upward in rounds until the piece measures 6" in length (or whatever your preference might be). Keep in mind that the last color for each round always ends up being the first color that you use for the next round, so there's no color-switching as you go past the beginning of the round.



*Decrease section:*

Now, divide your sts further so that you have 6 sets of 18 sts each. It's easiest to do this by just dividing each section in half with a different color of stitch marker, especially if you use locking stitch markers so that nothing has to come off the needles.

*Decrease round:* \*ssk, k to 2 sts before next marker, k2tog, slip marker\* until end of round, while continuing to switch colors at the appropriate stitch markers. (12 sts decreased, 96 sts remain.)

*Plain round:* k all sts, continuing to switch colors at the appropriate stitch markers.

Repeat these two rows 7 more times, until 12 sts remain, switching the double-pointed needles when appropriate. Use the gaps between the needles to stand in place of your color-switching stitch markers.

*Final decrease round:* \*ssk, k2tog\* until end of round, while continuing to switch colors at the appropriate stitch markers. (6 sts decreased, 6 sts remain.)

Break all yarns, leaving long enough tails to weave in for Colors B and C, and a longer tail for Color A. Tuck the strands for Colors B and C into the hole at the top of the hat so that they are on the inside. Thread Color A onto a yarn needle and pull the yarn through the remaining 6 sts on the needles, pull snugly, and secure to the inside of the hat.

Weave in all ends, and then spend a few minutes staring lovingly at that awesome spiral. Finish the hat by thoroughly washing and wet-blocking it, which will ensure that the tiny ribbed section stays flat and that the color-switching areas settle down. When the actual knitting is taking place, these areas might feel stiffer or tighter than the surrounding fabric, but a good blocking makes it all even out nicely.