Many garments rely on gussets—triangular-shaped areas of “extra” fabric—that provide additional ease at stress points and allow the wearer more freedom of movement. In knitting, gussets are formed by working strategically spaced increases (or decreases, depending on the direction of knitting) at the same time the rest of the garment is knitted. Although it’s quite acceptable to knit a mitten or glove without a thumb gusset (see Progressive Gloves on page 80), many knitters insist that a gusset is necessary for a truly comfortable fit.

A thumb gusset is shaped like an inverted triangle positioned along the thumb side of the hand with the apex slightly above the wrist and the base hitting the thumb where it separates from the hand (illustrated below). The widest part of the gusset—or base of the triangle—should approximate the thumb circumference, which for adult mittens and gloves is almost always 3” (7.5 cm). If in doubt, wrap some of the cuff comfortably around the base of your thumb and count the stitches needed to encircle it. The depth of the gusset is usually between 2” and 2½” (5 and 6.5 cm). All of the following gussets rely on increases to create the triangular shape, but they differ in their final appearance. The method you use to work the increases will further affect their appearance. To give the gusset a refined look, work directional increases (see Glossary, page 113), left-slanting on the right edge of the gusset and right-slanting on the left edge. Work the increases every two or three rounds until the gusset measures the desired width.

Of the many possible ways to shape a thumb gusset, the four most common appear on the sampler shown here. All the instructions that follow assume that the mitten or glove is worked in the round from the cuff upward on an even number of stitches. For simplicity, the stitches should be arranged on four double-pointed needles with one-half the stitches on the first two needles and one-half on the last two needles. For the right hand, the first two needles hold the back-of-hand stitches and the last two needles hold the palm stitches (vice versa for the left hand). Each type of gusset begins when the mitten or glove measures about ½”–1” (1.3–2.5 cm) above the wrist and ends when the gusset measures about 3” (7.5 cm) in width and is 2” to 2½” (5 to 6.5 cm) deep. The gusset stitches are then transferred to waste yarn, new stitches are cast on if necessary to reestablish the original number of hand stitches, and the glove is worked through the fingertips. Finally, the held gusset stitches are worked to form the thumb. With the exception of the asymmetric gusset, the palm and back-of-hand sides of the gussets are identical—the same glove will fit well on either hand. If you prefer, you can make a gusset hand...
specific by positioning the center stitch (or stitches) of the gusset on the palm side of the glove (about ¼" [2 cm] before the end of the second needle for the left hand, or an equal distance after the beginning of the third needle for the right hand).

**Basic Gusset**

The most common type of gusset (shown in green) is formed by increasing stitches every third round on each side of a center stitch, located along the inside “seam” of the mitten or glove (at the break between the second and third needles). The hand stitches are not interrupted by the gusset.

*To knit a basic gusset:*

**Set-up rnd:** Work to the end of the second needle (end of back-of-hand sts), place marker (pm), inc 1 to create the center st of the gusset, pm, work to end of rnd—1 gusset st between markers. Knit 1 rnd even.

**Inc Rnd 1:** Work to first marker, slip marker, inc 1, k1, inc 1, slip second marker, work to end of rnd—2 sts inc’d; 3 gusset sts between markers. *Work 2 rnds even.*

**Inc Rnd 2:** Work to first marker, slip marker, inc 1 st, work to second marker, inc 1 st, slip marker, work to end of rnd—2 sts inc’d. Rep from * until there are about 3" (7.5 cm) worth of gusset sts between markers (for our sampler gauge of 5 sts/inch, we increased to 15 gusset sts). If necessary, work a few rnds even to bring the height of the gusset to the same place on your hand where the thumb separates from the palm.

**Next rnd:** Work to first marker, transfer gusset sts onto a holder or waste yarn, work to end of rnd—there will be the same number of sts you started with. Continue to the tips of the fingers as specified by your pattern, then work the thumb.

**Thumb:** Distribute the gusset sts evenly on 3 double-pointed needles. Join yarn at right edge of sts and work around to the gap, use the backward loop method to CO 4 sts over the gap (to replace the stitches used for the gusset), work to end of rnd—there will be the same number of sts you started with. Continue to the tips of the fingers as specified by your pattern, then work the thumb.

**Palm Gusset**

A palm gusset (shown in gold) is unusual in that all of the stitches for the gusset are taken from the hand stitches. Symmetrical increases are used to replace the palm and back-of-hand stitches that form the gusset. Working the increases every other round creates a strong, graceful line arched across the hand. To make this gusset, you’ll need to do some easy calculations. First, determine the number of stitches needed for the gusset. If the number isn’t even, round up (for a standard fit) or down begin on either side of four or more stitches taken from the hand. When the thumb gusset is complete, the number of hand stitches used to begin the gusset is replaced by casting on stitches opposite the gusset. The extra thumb stitches are decreased on the first few rounds of the thumb to taper it to a comfortable fit.

*To knit a wide gusset:*

**Set-up rnd:** Work to last 2 sts on second needle, place marker (pm), inc 1, k4, inc 1, pm, work to end of rnd—2 sts inc’d; 6 sts between markers. *Work 2 rnds even.*

**Inc rnd:** Work to first marker, slip marker, inc 1, work to second marker, inc 1, slip marker, work to end of rnd—2 sts inc’d. Rep from * until there are about 3" (7.5 cm) worth of gusset sts between markers (for our sampler gauge of 5 sts/inch, we increased to 16 gusset sts). If necessary, work a few rnds even to bring the height of the gusset to the same place on your hand where the thumb separates from the palm.

**Next rnd:** Work to first marker, transfer gusset sts onto a holder or waste yarn, use the backward loop method to CO 4 sts over the gap (to replace the stitches used for the gusset), work to end of rnd—there will be the same number of sts you started with. Continue to the tips of the fingers as specified by your pattern, then work the thumb.

**Thumb:** Distribute the gusset sts evenly on 3 double-pointed needles. Join yarn at right edge of sts and work around to the gap, use a fourth needle to pick up and knit 1 st for each CO st to complete the rnd—there will be the original number of gusset sts plus 4. Join into a rnd. Knit 1 rnd. **Dec Rnd 1:** Work to last 4 sts (the sts picked up at the gap), k2tog, ssk—2 sts dec’d. *Knit 1 rnd.** Dec Rnd 2:** Knit to last 2 sts, k2tog—1 st dec’d. Rep from * once—the original number of gusset sts rem. Finish as for basic gusset thumb.
(for a snug fit) to the nearest even number. Subtract this number from the total number of hand stitches and divide the remainder in half. For our example, we used 16 gusset stitches, which left us with 22 hand stitches; half the designated hand stitches calculated to 11 stitches.

To knit a palm gusset: Set-up rnd: Work half the designated hand sts, inc 1, place marker (pm), work the designated number of gusset sts (half these sts will come from the end of the second needle, half will come from the beg of the third needle), pm, inc 1, work to end (for the rem half of the designated hand sts). *Knit 1 rnd even, Inc rnd: Work to first marker, inc 1, slip marker, work to next marker, slip marker, inc 1, work to end of rnd. Rep from * until there are 2 fewer than the original number. Work a few rnds even, if necessary, to bring the height of the gusset even with the place on your hand where the thumb separates from the palm.

Next rnd: Work to marker, transfer gusset sts onto a holder or waste yarn, use the backward loop method to CO 2 sts over gap, work to end of rnd. Continue to the tips of the fingers as specified by your pattern, then work the thumb.

Thumb: Distribute the gusset sts evenly on 3 double-pointed needles. Join yarn at right edge of sts, and work around to CO sts at other edge of gusset sts; use a fourth needle to pick up and knit 2 sts at the base of the CO sts to complete the rnd—there will be the original gusset sts plus 2. Join into a rnd. Dec Rnd 1: Work to 1 st before picked-up sts, k2tog, ssk—2 sts dec’d. Finish as for basic gusset thumb.

Asymmetric Gusset

For the sleek asymmetric gusset (shown in red) all the increases are made on the palm side of the mitten or glove—no increases are made on the back of hand. Because only one stitch is increased at a time, the increases are worked more frequently (every other rnd instead of every third rnd) to ensure that there are enough stitches to create a comfortable gusset and thumb by the time the necessary gusset depth is reached. As with the wide gusset, the palm gusset incorporates stitches from the hand of the glove which are replaced after the gusset is completed.

To knit an asymmetric gusset: Set-up rnd: For a left hand, work to 2 sts before the end of the second needle, place marker (pm), inc 1, k4, pm, work to end of rnd (for a right hand, work the inc just before the second marker)—5 gusset sts between markers.

Inc rnd: For a left hand, work to first marker, slip marker, inc 1, work to end of rnd (for a right hand, work the inc just before the second marker)—6 gusset sts. Rep from * until there are 4 sts fewer than the desired total number of gusset sts between markers. Next rnd: Work to first marker, transfer gusset sts onto a holder or waste yarn, use the backward loop method to CO 4 sts over gap, work to end of rnd. Continue to the tips of the fingers as specified by your pattern, then work the thumb.

Thumb: Distribute the gusset sts evenly on 3 double-pointed needles. Join yarn at right edge of sts on needles to the gap, use a fourth needle to pick up and knit 1 st at the base of each CO st to complete the rnd—there will be the original gusset sts plus 4. Join into a rnd and finish as for basic gusset thumb.

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