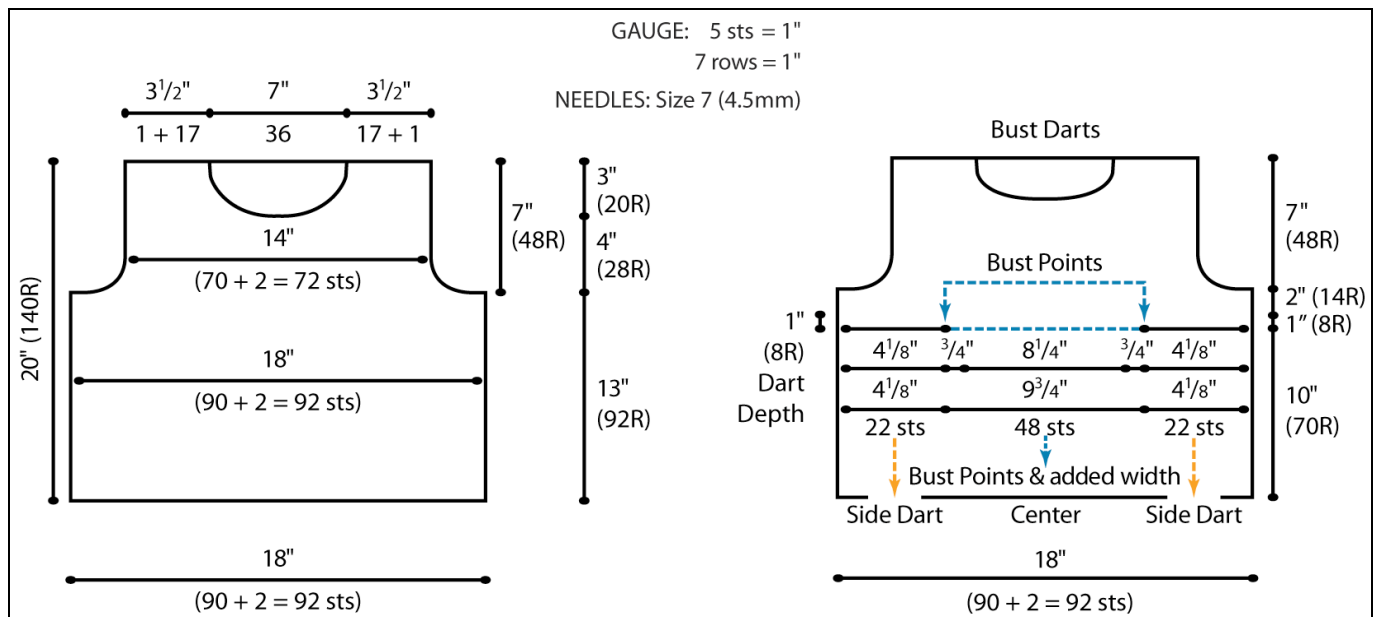


Brief Explanation of the Bust Dart Technique

Knitted bust darts are not true “darts” as we know them in cloth fabric. One of the major differences is that with knitted darts no fabric is removed as they are made. When we say “darts” we mean that a block of fabric is added across the bust area. To do that you must shape that area using shorts rows. By using the short row technique the side seam measurement remains unchanged while additional fabric is inserted across the center bust area. The side *darts* are the fabric along each side where the steps in the short row turns are made. The fabric between the side darts where the extra fabric is added is called the *center*.

If additional width is needed in the bust area, the front can also be made wider than the back by usually 1”. Remember to bind off the extra stitches during the armhole bind offs (1/2” on each side) so that there will be the same number of stitches in the shoulders.

You can also begin with the same number of stitches in the front as in the back and plan a tapered increase to gradually add the extra width needed in the front piece for the bust. Again, the extra stitches will have to be removed during the armhole shaping. Use the shaping formula to plan this type of gradual taper as you would a sleeve cuff-to-upper arm taper. Either of the two “extra inches in the front” techniques can be combined with bust darts.



1. 22 Rows from beginning of Bust Dart Shaping to beginning of Armhole
2. 8 total rows in dart shaping = 4 rows on each side
3. 22 – 8 = work 14 rows (2") even to beginning of armhole shaping after completing bust darts

| Essential Measurements & Numbers | Pattern Stitch |
|--|---|
| <p>Gauge: 5 sts & 7 rows Armhole Depth = 7" Total Length of Garment = 20" Work Even section = 2"</p> | <p>Use Stockinette, Reverse Stockinette or Garter Stitch otherwise pattern flow will be interrupted by the short row technique.</p> |

1. Beginning Total Stitches in the Front Stitch Count:

$$18'' \text{ Front} \times 5 = 90 + 2 = 92 \text{ stitches}$$

2. Measurement point between bust points: $8 \frac{1}{4}'' + 1 \frac{1}{2}'' = 9 \frac{3}{4}''$

- Multiply the answer by the stitch gauge for number of center stitches between darts
 $9 \frac{3}{4}'' \times 5 = 48 \text{ stitches (rounded even) between side bust darts}$

- Make this number even or odd based on the total stitch count on the front. Add or subtract one stitch if necessary.

Note: To avoid having the edge of the darts end on the bust points add about $\frac{3}{4}''$ on each side to the center width between the darts. In our above example, the actual distance between the bust points is $8 \frac{1}{4}''$. We have added $\frac{3}{4}''$ on each side = $1 \frac{1}{2}''$ added to the center width. We therefore have $9 \frac{3}{4}''$ in our "center" front between the side darts.

3. Measure back, then measure front. The difference is the amount the sweater will usually ride up in front usually 1 to $1 \frac{1}{2}''$. On our sample we will use 1".

- Multiply this number by the row gauge for the number of rows needed in the dart depth.
 $1'' \times 7 = 8 \text{ rows in dart depth}$ **Note:** round rows to an even number.
- 8 extra rows will be added to the Front in the Bust area.

4. Divide the extra rows in half for the number of rows that will be worked on each side.

$$8 \div 2 = 4 \text{ extra (short) rows will be worked at the bust for the darts on each side}$$

5. Calculating the stitches in each of the 4 short rows.

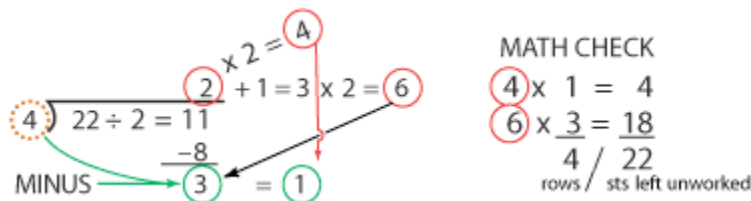
- Subtract the Center Sts between the darts from the Total Front Stitches
 $\text{Total Front Stitches} = 92 - 48 = 44 \text{ sts in side darts}$

6. Divide the answer above in half for the dart stitches on each side of the center sts.

$$44 \div 2 = 22 \text{ stitches on each side}$$

- Math Check: $22 \text{sts Rt. Dart} + 48 \text{sts Center} + 22 \text{sts Left Dart} = 92 \text{ sts}$

7. Divide total stitches in each dart by the number of short rows on each side to calculate the short row stitch wrapping sequence: $22 \text{ sts} \div 4 \text{ rows}$



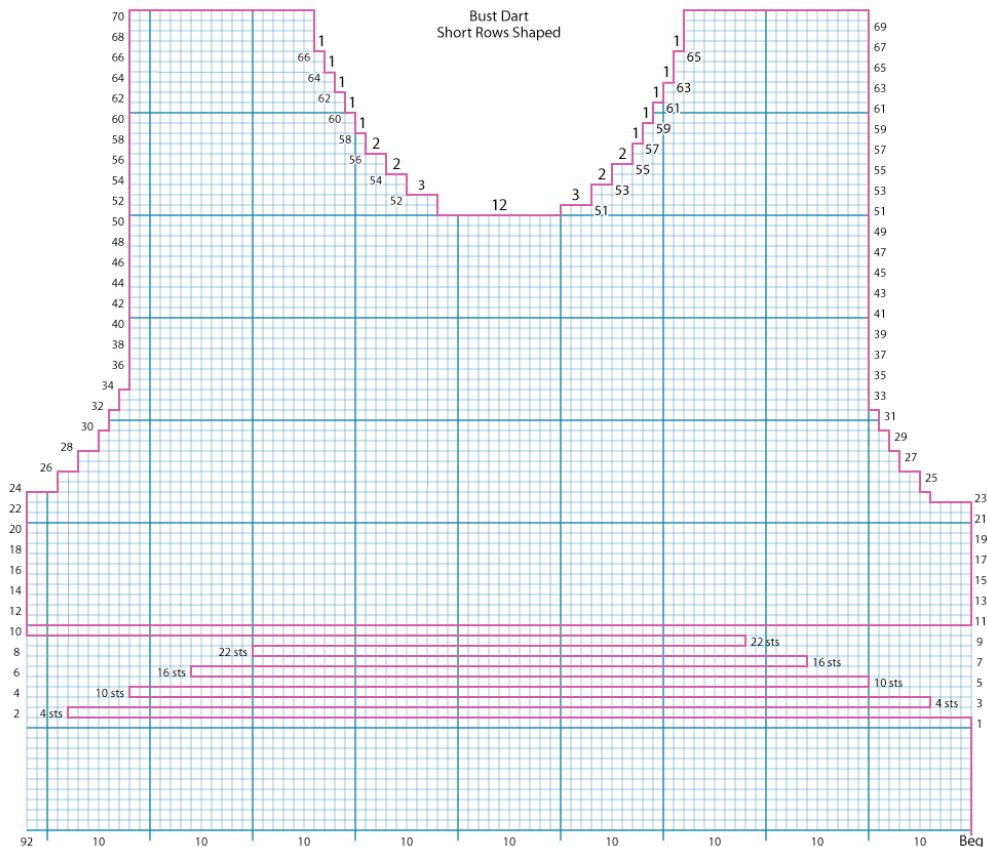
- The formula instructs us to work short row turning by leaving 4 stitches unworked on each side (at the armholes edges) once, then leaving 6 sts unworked on each side 3 times.

8. When you reach your dart placement row (usually 3" to 4" below the beginning of the armhole shaping), work across the row until only the stitches in the first short row remain unworked (4 sts

in our example). Wrap the next stitch and turn. After turning, work to the same place on the opposite side and wrap. Continue working each side leaving the calculated number of additional stitches until all the side dart stitches have been wrapped. In our example there are 4 short rows on each side over which we are wrapping the 22 side dart stitches. We are leaving 4 sts once on each side, then 6 sts 3 times on each side. Work as follows: leave 4 sts unworked on each side, then $4+6 = 10$ sts unworked on each side, then $10+6 = 16$ unworked on each side, then $16+6 = 22$ unworked on each side. On the next 2 rows work across all the stitches on the row hiding the wraps as you work across.

Determining the Dart Placement

1. Distance between bust points = Center sts
2. Take the distance between the bust points and the side seam and add $\frac{3}{4}$ " on each side.
3. Measurement from bust points + $\frac{3}{4}$ " on each side to the side edge of the garment x the stitch gauge = the number of stitches that will be placed in the darts on each side.



Beginning Point for Bust Dart Shaping Rows

4. Subtract Armhole Depth from Total Length of Garment to determine where Armhole begins:
 $20'' - 7'' = 13''$ to beginning of Armhole x 7 = 92 Rows (round the rows even)

5. Subtract the work even section length from the beginning-to-Armhole length to determine where the dart shaping will end. Next, subtract the length of the dart shaping from the ending length to determine when the dart shaping (short rows) will begin.

13" (beg-to-armhole length) – 2" (work even) = 11" (dart shaping will end 11" from beg)

11" – 1" (dart shaping length) = 10" x 7 (row gauge) = 70 rows (rounded) to beginning of short rows for bust darts.

Stitch Layout

6. Place markers (PM) for side darts at 22 sts from each edge

22sts (Rt Dart) **PM** 48sts (Center) **PM** 22sts (Left Dart)

7. Short Row Schedule: for each successive short row add the number of sts from the previous short rows to the number of sts left unworked before wrapping and turning.

Work across to last 4 sts Leave 4 sts unworked, wrap and turn (2x)

Work across to last 10 sts Leave 6 sts unworked, wrap and turn (2x)

Work across to last 16 sts Leave 6 sts unworked, wrap and turn (2x)

Work across to last 22 sts Leave 6 sts unworked, wrap and turn (2x)

Work across the next 2 complete rows hiding the wraps on the front and back. Measure the length along the side seam and count only the rows in the side seams. Do not count the additional center rows added with the short row technique in the total rows. They have been placed there only to add extra fullness in the bust area.