## A Fabric-conserving Method for Creating Blocks with Inset Quarter-Circles

## Lorna Shapiro, November 2022

These instructions describe how to build blocks that finish like this:

without wasting the quarter-circles cut from the background blocks and the remainder fabric left after cutting quarter-circles from the foreground blocks.

1. Start with two 9 " squares of foreground fabric and two squares of background fabric the same size.
2. Also cut a $11 / 2 " \times$ WOF strip of each fabric.
3. Organize sets of squares for constructing blocks:
a. Lay out the pair of foreground fabric and background fabric squares.
b. Add one $1 \frac{1 / 2 "}{}$ x WOF strip of the foreground fabric and one of the background fabric to the group.
c. This set of fabric pieces will make the 4 sub-blocks needed to create one block.
4. Working with each group, one at a time, create the $\mathbf{4}$ sub-blocks as follows:
a. Lay one foreground and one background square over top of each other, right sides up.
b. Cut a 6 " radius quarter circle through the two layers, with an additional $1 / 4$ " seam allowance on the two straight edges. Create a template if you do not have a ruler to cut circles.

c. Set aside the quarter circles to be sewn in at a later point.

d. Take the two remainder pieces and cut $1 / 2 "$ off the ends of each of these as shown here:

e. When working with set-in circles, a circle goes into a hole that is 1 " in diameter smaller than the circle itself. We are working with a 12 " circle ( 6 " radius quarter circle) so it will go into a hole that is 11 " in diameter ( 5.5 " in radius). We therefore now need to adjust the curve of the remainder piece (which is providing the "hole") so that it matches a 5.5 " radius circle. To do this, we position each remainder piece as shown, lining up the two trimmed sides on 2 intersecting lines on your cutting mat.

f. Use the $5.5^{\prime \prime}$ quarter circle template positioned with the centre of the quarter circle on the grid lines as shown. Cut the curve of the remainder piece so that it follows the 5.5 " quarter circle curve.
g. When you have adjusted the curve of both remainder pieces, you are ready to sew the quarter circles into the remainder pieces. Fold the quarter circles, marking with a press mark the centre of the curve. Fold the remainder pieces, marking with a press mark the centre of the curve.
h. Pair a background remainder piece with a foreground quarter circle. Place right sides together, match and pin centre points and the start and end points of the curve. Sew with a scant $1 / 4$ " seam and the quarter circle on the bottom
i. Press towards the dark
j. Repeat this process for the foreground remainder piece paired with the background quarter circle. Again, press toward dark.
k. Repeat steps " a " through " j " with the second pair of squares and when this is done you will have 4 almost complete quarter circle sub-blocks. You now need to add the $11 / 2 "$ strips to complete the sub-blocks.
5. Sub-cut the $11 / 2 " \times$ WOF strips (both foreground and background) into $410 "$ strips. Sew these strips onto the two inner edges of the quarter circle squares to complete the sub-blocks as shown in step 2 . They are longer than needed and will be trimmed in the next step.
m. Trim each block to $91 / 2 " \times 91 / 2 "$ by trimming away excess from the two edges to which you did not sew $11 / 2^{\prime \prime}$ strips.

6. Sew together pairs of sub-blocks you have just completed to create two partial blocks as shown. Press toward dark.

