

# Quilt Block Square Diamond Kite Instructions

Taught by Rob Pratt at 2013 Ft Worden Kitemakers Conference



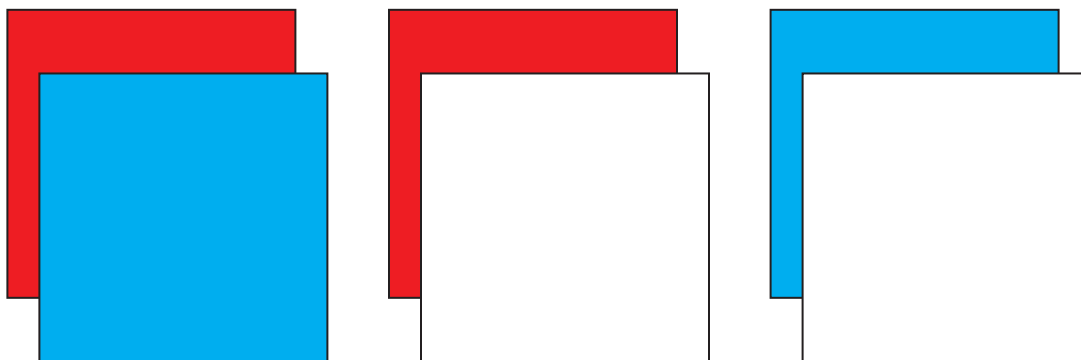
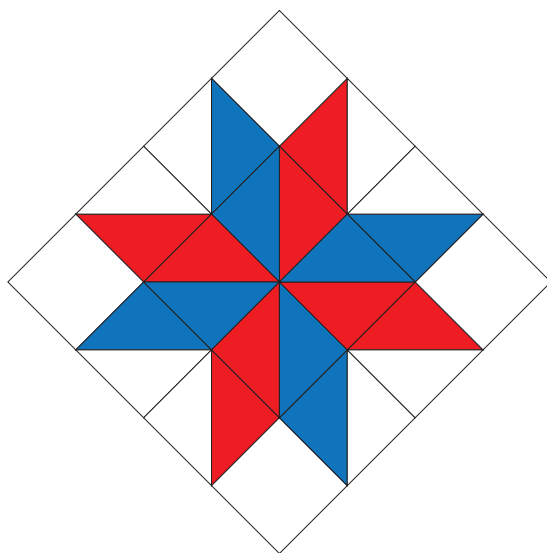
## Parts List

- 1     Fiberglass spine 1560 carbon
- 1     Fiberglass bow spar 1250 carbon
- 2     vinyl end caps .109
- 2     vinyl end caps .140
- 24    7.5" ripstop squares
- 2     3"x 54" ripstop strips
- 2     10"x 2" Ripstop
- 2     2"x 2" ripstop
- 2     1"x 3" ripstop
- 2     1" squares ripstop tape
- 3     4" Flat braid
- 1     8' Dacron bridle line 50lb
- 1     12" Dacron line
- 3     6" x 54" ripstop strips

These instructions are intended for the use of the students of this class and the members of 2013 Ft Worden Kitemakers Conference for non-commercial use. Please ask for permission to use these instructions for anything other than your personal use. Thank you.

Figure out which pattern you are going to make and select the colors. See the sheets attached to the back of the instructions for the patterns.

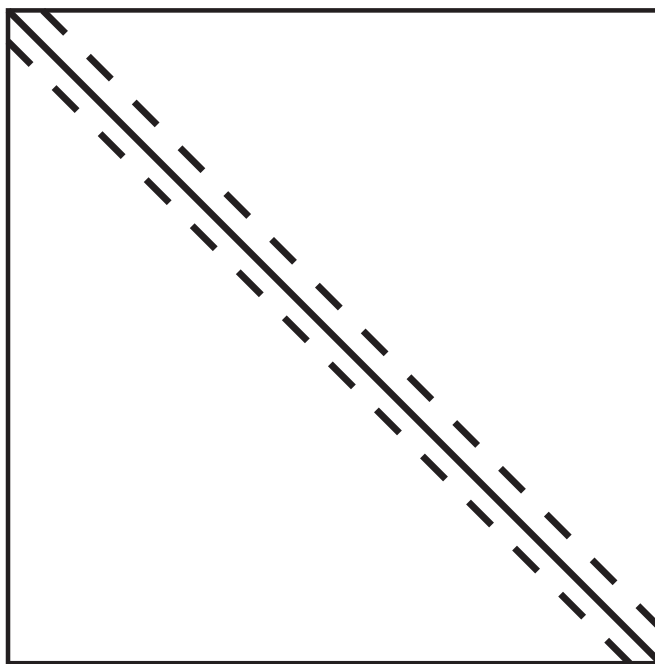
Keeping the squares organized makes the process of building the field of this project much easier. Pair the squares into sets that correspond to the design you are making see diagram below.



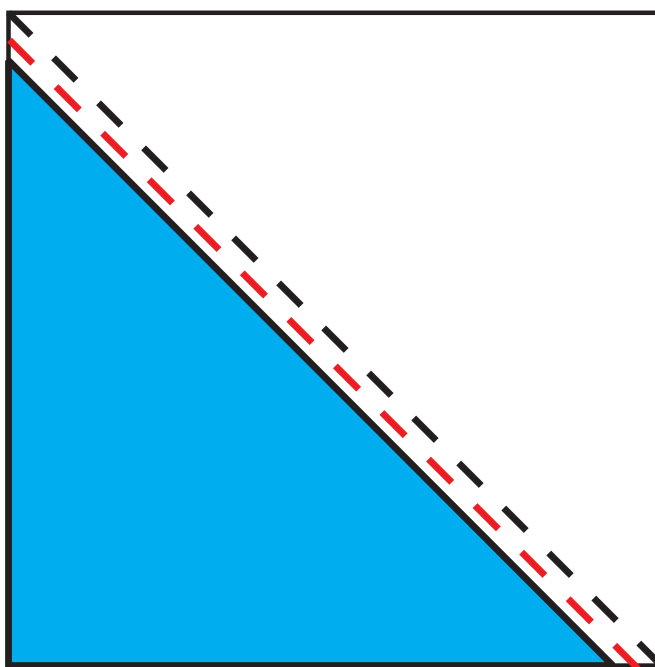
For this design I would sort the colors into red and blue; red and white; blue and white and just white

On one square of each pair draw a diagonal line from corner to corner. Then draw a line 1/4" on either side of the center line.

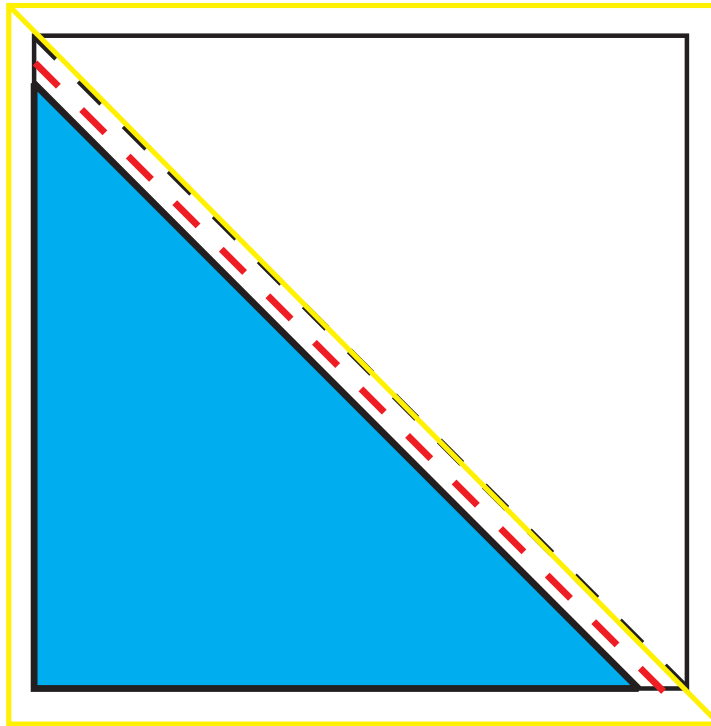
Put this square on top of it's pair making sure to line up the edges and using the glue dots to hold them together. Once you have the two squares attached sew a straight stitch on the lines you drew on either side of the center line. See the diagram below. Repeat the steps on this page until you have all your pairs sewn together.



With a rotary cutter cut on the center line you drew, so that you have triangles. Open the triangles up and crease to dark fabric side of the seam and top stitch.



Trimming the squares. With the quilting square line up the diagonal line on the square with the seam on the fabric square. Try to make sure that you have some fabric to trim on all sides to get a good diagonal line from corner to corner (or as close as you can!)



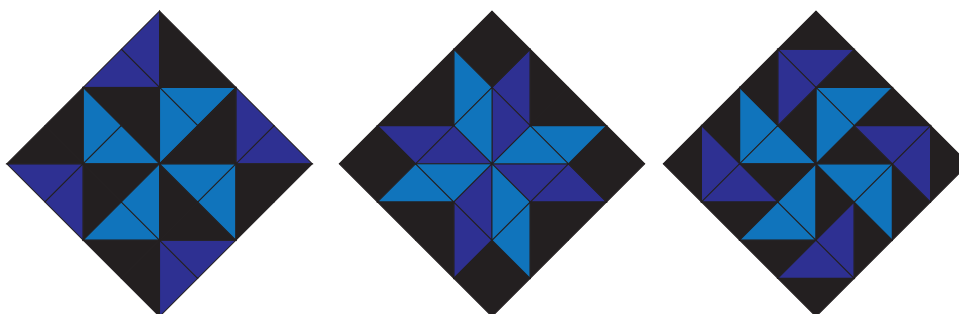
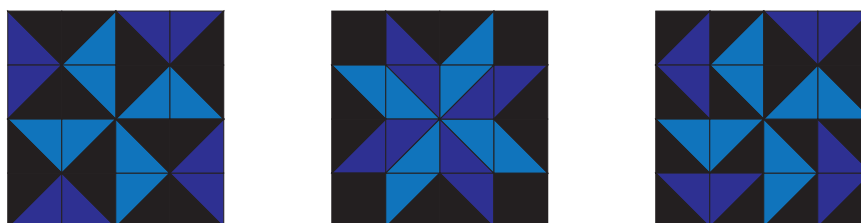
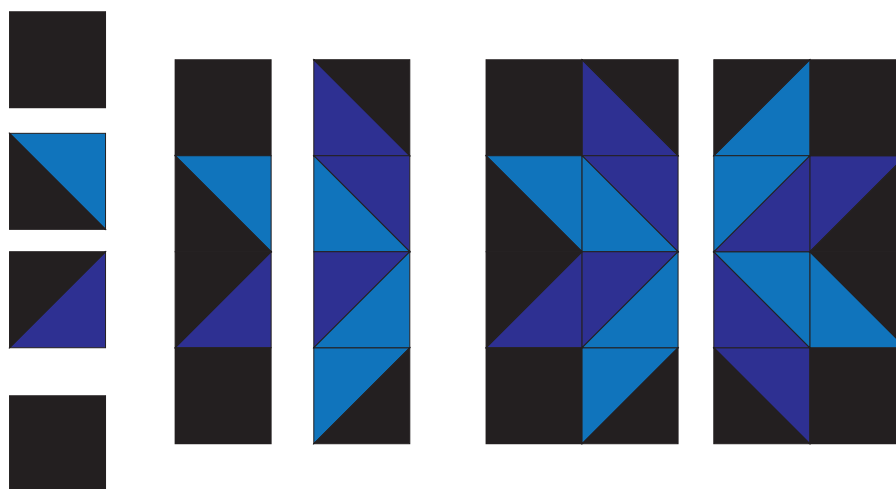
Once you have the template lined up to your satisfaction. Trim the right side first and then the top (If you are left handed Trim the left side first and then the top). Then without moving the template or the fabric spin the whole mat so that you can trim the other two sides.

Time to reorganize your sail pieces again. put them in 4 piles representing the different rows of the pattern.

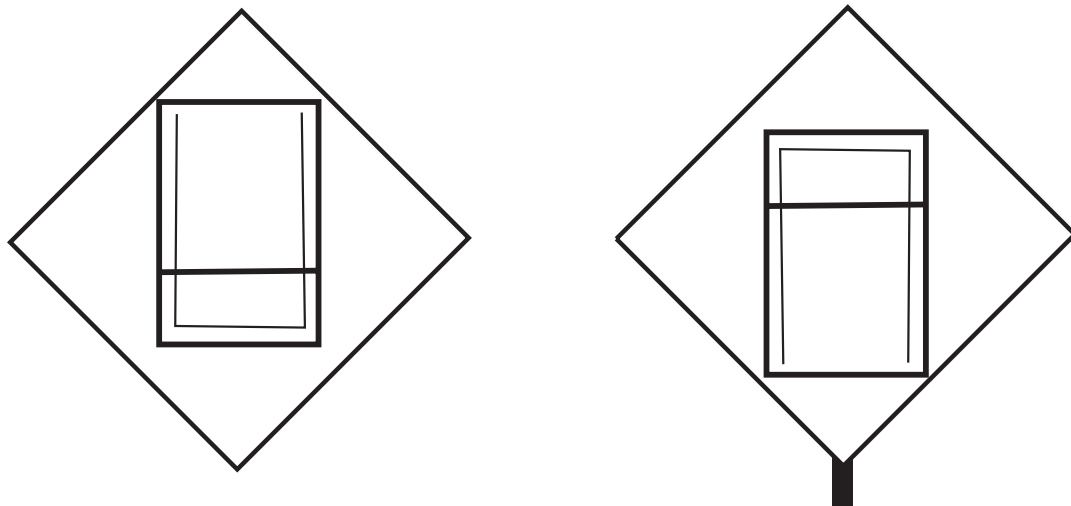
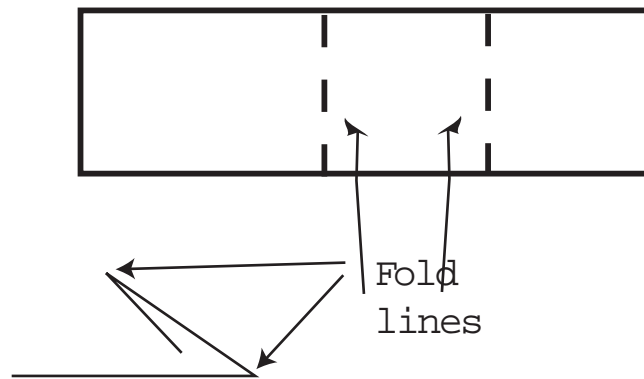
The order I sew the squares together is one row of four until I have four rows sewn. I then sew two of the rows together and then sew the two halves together.

Once you have the field of the kite completed, you can sew on the 3" strips around the edge of the field.

When all four sides are sewn on and trimmed hem the kite with a double fold hem on all sides.

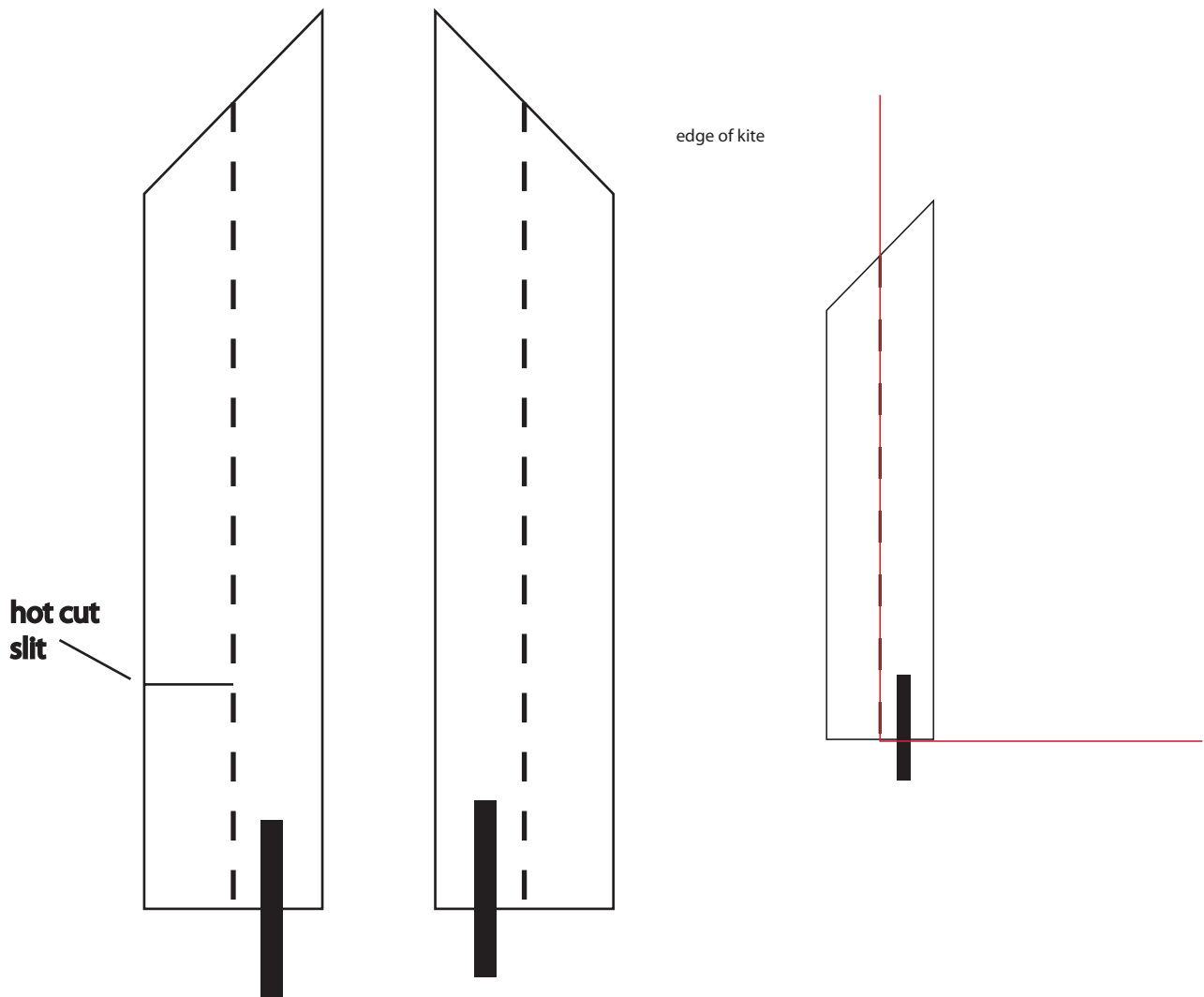


Find the two square corner patches and one of the 4" flat braid twine. Tie an overhand knot on one end of the twine. Sew the twine one to one of the square patches with about 1/2" overhanging one corner. Locate the 1"x 3" pockets and fold the as indicated in the diagram below. Sew pockets on both, one with a loop of line coming out the bottom. See the Diagram below.



Sew these patches on opposite corners on the back of the kite. I like to hold the patch in position with tape while I sew two sides, then pull off the tape and sew around the third side.

The 10 x 2 inch 3.9 ripstop will form the sleeves for the cross spar. Fold them in half long ways, and crease vigorously. Fold so they are a right and left hand pair. Hot cut a slit in ONE of them as shown in the sketch about 2 or 3 inches from the square end. Tie an overhand knot on one end of the twine. Sew a knotted flat braid on both sleeves for tail attachment.



Place on the leading edge at the wing tip, with the longer side next to the sail and the crease 1/8 inch in from the skin edge. Tape the edge next to the skin down securely. Unfold the halves. Sew to the skin by Sewing along the crease that should be about 1/8 inch in from the edge of the sail. Remove the tape. Fold the sleeve over and sew the other three edges. Any questions---please ask BEFORE you sew!



Fit the spars.

Put an end cap one end of the 1560 spar. Insert it into the top pocket. Mark the spar to fit and cut the spar to fit between the top and bottom pockets as the spine. Remember to leave a skosh of room for the other end cap. I do not carry a spar stretcher so measure carefully!

Fitting the cross spar, put a vinyl end cap on one end of the 1250 rod. Put the end of the cross spar without a end cap in the side pocket with the slit so that the end of the spar goes through the slit about 8 to 12 inches. Now bend the cross spar and put the capped end in the opposite side pocket. Slide the uncapped end of the spar up until the spot where the spar cross is approximately 7 3/4 inches from the point of the kite. Mark the spar on the uncapped end for trimming.

You can now glue the caps on to the spars.

Mark on the front of the sail where the spars cross and the spot for the lower reenforcement about 5-6 inches from the bottom of the kite. Apply the 1 inch ripstop tape at these marks on the back of the kite.

Using a hot tacker make a hole for a bridle in the sail at each reenforcement.

The bridle uses 8 feet of the Dacron line. I put one end through the bridle holes wrap the bridle line around the spine and take back through the hole and tie the end off to itself. Do this top and bottom. Take a 12 inch piece of the Dacron and double it up and tie a figure eight knot in the end. The larks head this to the bridle line for your tow point.

For the tails sew one of the 60" x 6" strips together with your some of your left over squares, cut these into 2 inch wide strips you should get three 2 inch pieces. Sew the three pieces together end to end repeat twice more to create the three tails. Fold one end of the tail into a triangle and sew around the edge of the triangle. Use the hot tacker to burn a hole in the middle of the triangle. Attach a loop of line to the hole and attach these to the kite.

Now Go fly the kite!

Note: Parts of these instructions were borrowed from John Freeman class notes.

Other techniques were learned from many different kite makers through out the years.

You never know when your going to learn something.

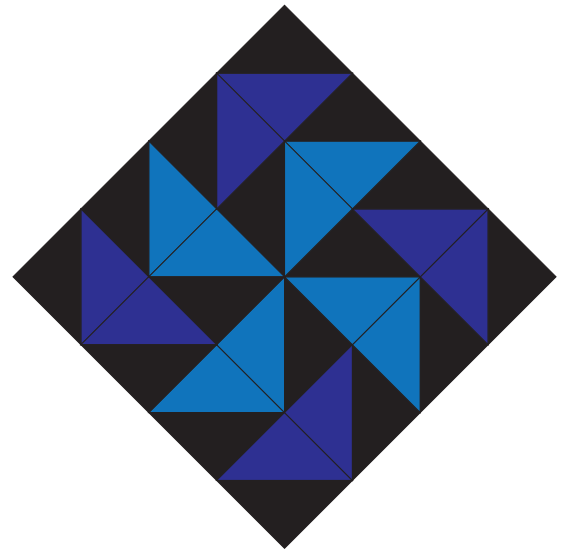
Thanks to the kite makers quilt makers who went before me and shared!



make 8



make 8



make 4



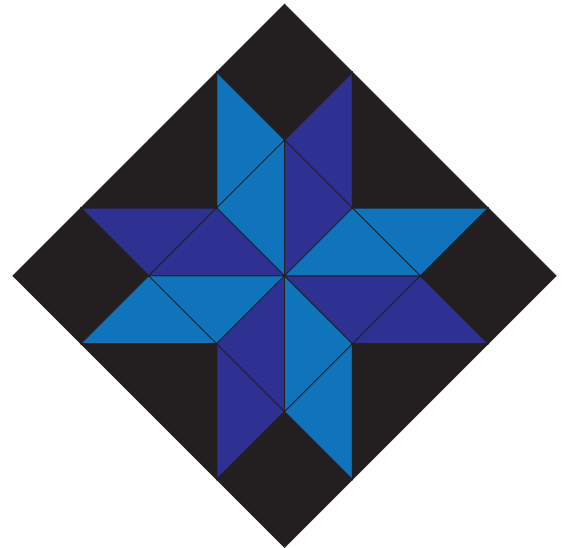
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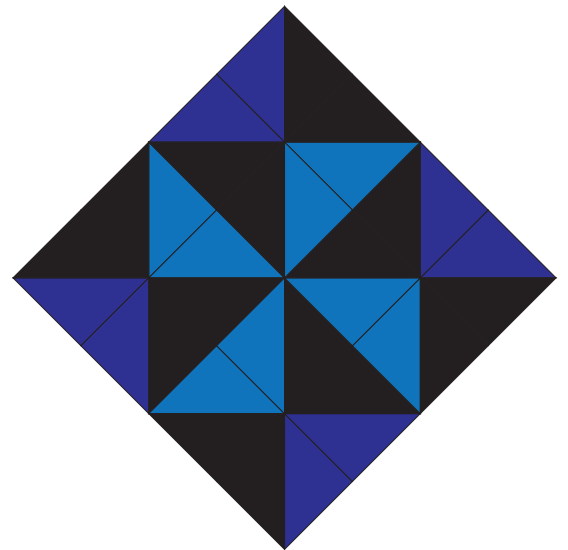
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make 8



make 8





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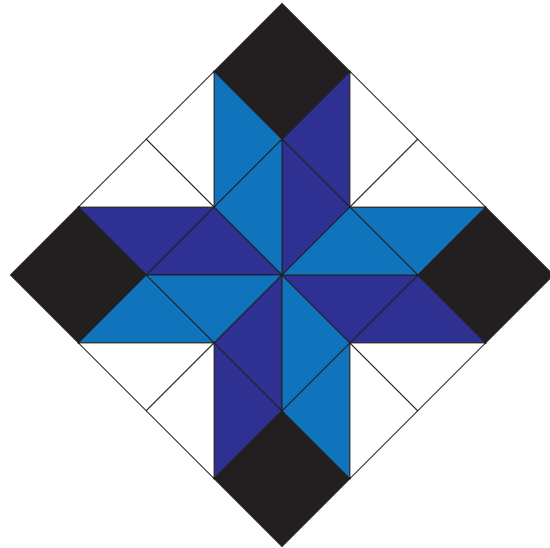
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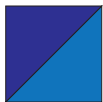
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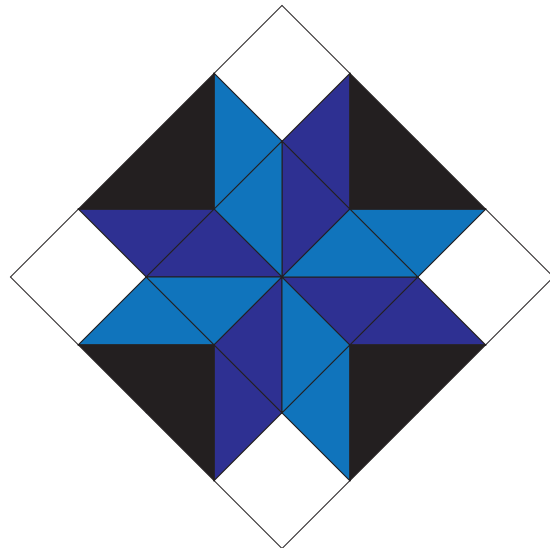
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## NOTES