

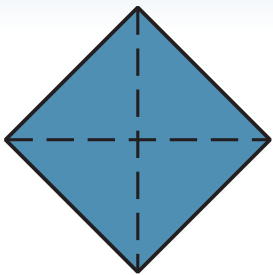
Zellij Origami Tiling

inspired by
Bourgouin Plate 48

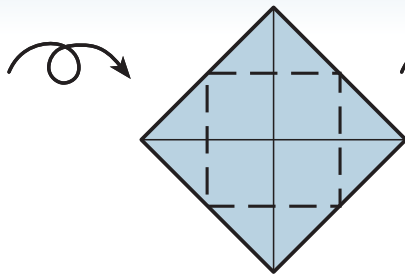
★★
Use 75 mm
squares or larger

Three kinds of pieces (*zellij*) make this tiling: an octagram star appearing as two overlapping squares, a regular octagon and an irregular (but symmetrical) hexagon.

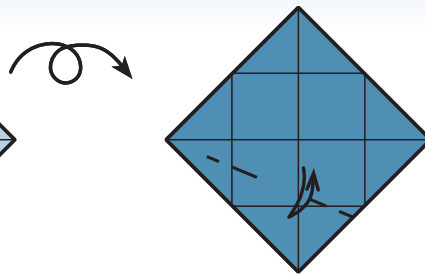
A. Khatem Octagram ★★



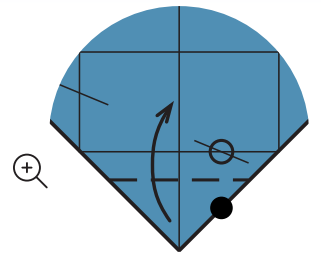
1 Valley fold diagonals. Turn over.



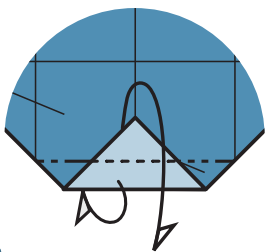
2 Fold corners to the centre and unfold. Turn over.



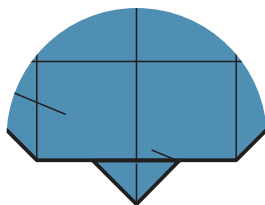
3 Bisect the lower left 45° angle. Rotate 90° and repeat (3x).



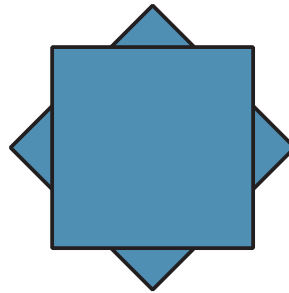
4 Fold the edge onto the location point.



5 Fold the flap behind and let the upper flap flip down.

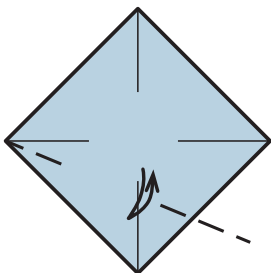


6 Repeat on the three other corners.

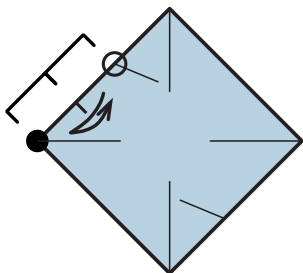


7 Complete.

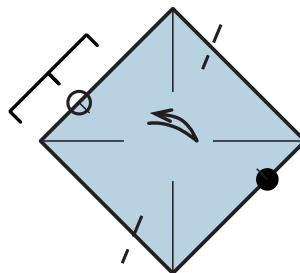
B. Regular Octagon ★★



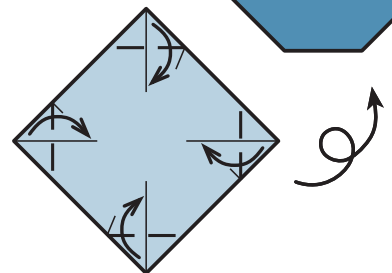
1 Crease partial diagonals. Bisect the lower left 45° angle, but only pinch the bottom right raw edge. Rotate 180° & repeat.



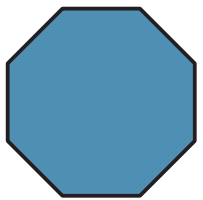
2 On the edge with the pinch mark, halve the larger fraction and pinch. Rotate 180° and repeat.



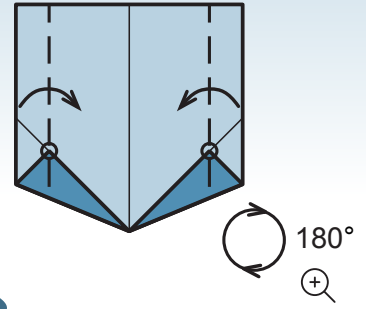
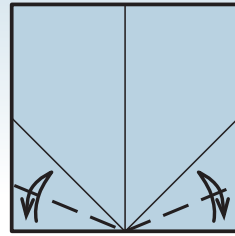
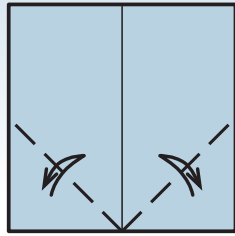
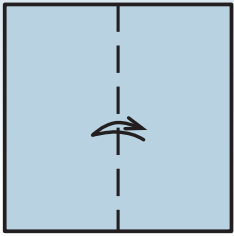
3 Join the new pinch marks together and pinch the edges. Unfold.



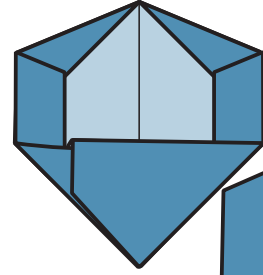
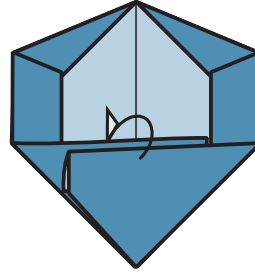
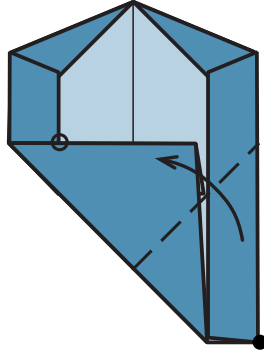
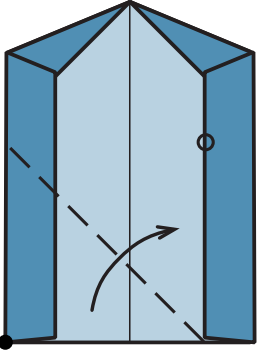
4 Fold the corners inward using the pinch marks. Turn over.



C. Hexagon ★★



- 1 Fold in half, left and right edges together and unfold.
- 2 Fold the bottom left and right corners to the centre. Unfold.
- 3 Fold the bottom edges onto the creases, bisecting the 45° angles.
- 4 Fold vertically through the corners. Rotate 180°.

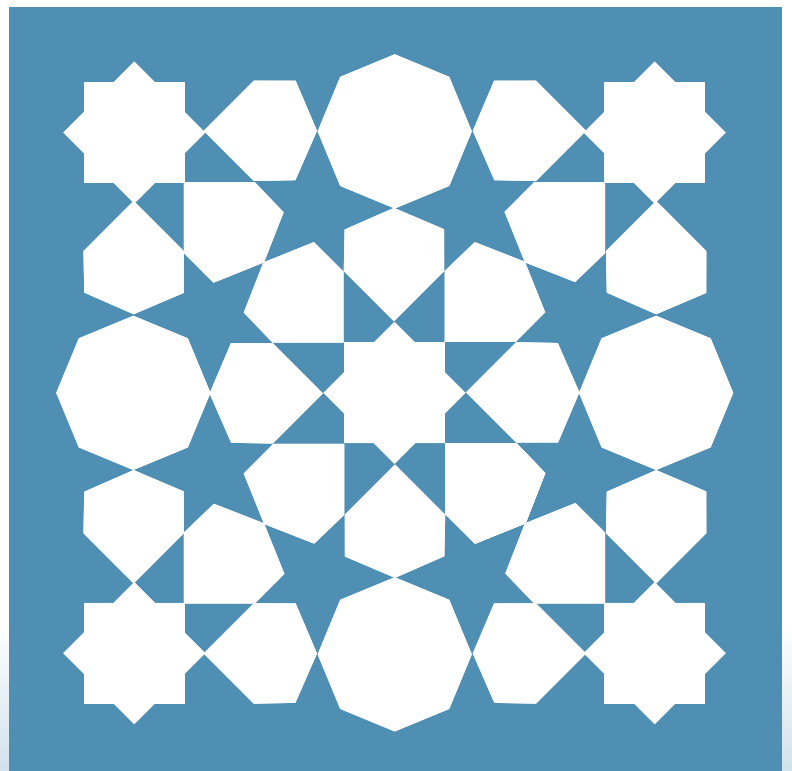


- 5 Fold the bottom edge onto the right raw vertical edge.
- 6 Fold the lower right edge onto the folded edge.
- 7 Tuck the left flap into the right flap to lock.
- 8 Turn over. Complete.

Collage ★★

Even a quarter tile is effective: in some ways, its half-turn rotational symmetry and two diagonal mirror lines is more pleasing (and less familiar) than the full tile which has quarter-turn symmetry and four mirror lines.

You can make a simple collage by folding pieces from white paper and placing them onto a colour backing sheet. Glue the pieces if you need a more longer lasting display.



	A	B	C
Qty above	2	2	6
right	5	4	20