

Alternate Explore: Cut Out Shapes B

Using the template attached, cut out three copies of each polygon using heavy paper (such as Bristol board) or cardboard.

Try the following combinations of polygons to see if you can create a tessellation. Trace your polygons as you go.

Combination 1: triangles and squares

Combination 2: pentagons and triangles

Combination 3: hexagons and squares

Combination 4: hexagons and triangles

Combination 5: pentagons and squares

Combination 6: octagons and squares

Combination 7: triangles and octagons

Combination 8: hexagons, squares and triangles

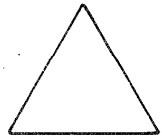
Combination 9: decagons and triangles

Combination 10: dodecagons and triangles

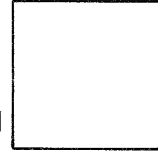
Combination 11: your choice _____

Using your sketches of the tessellations, find the sum of the angles at any given point on each sketch. What do you notice? Do you think this will always be the case? Why?

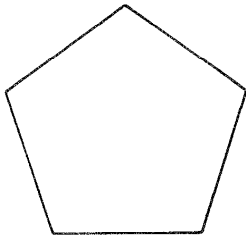
Regular Polygons



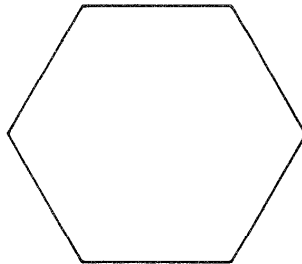
Equilateral
Triangle



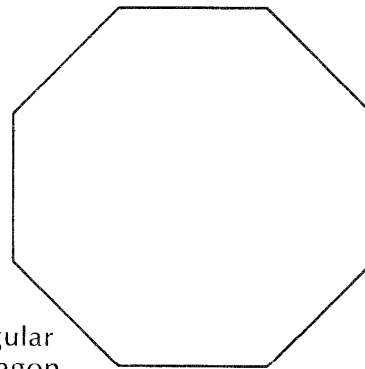
Regular
Quadrilateral
(Square)



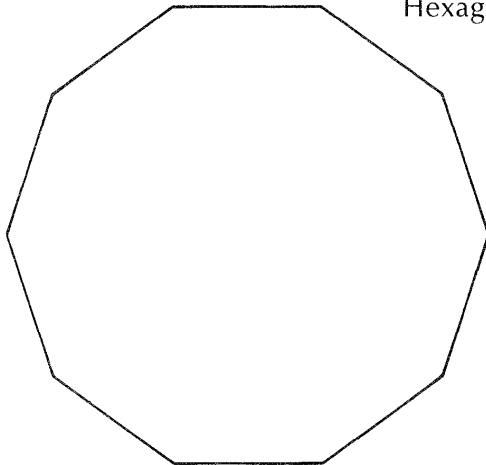
Regular
Pentagon



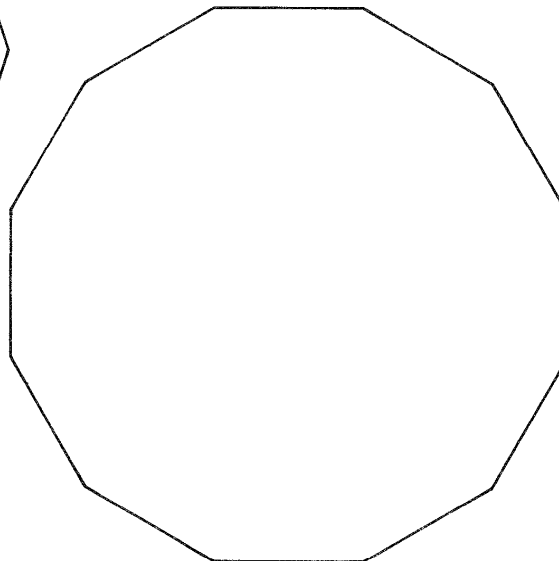
Regular
Hexagon



Regular
Octagon



Regular
Decagon



Regular
Dodecagon