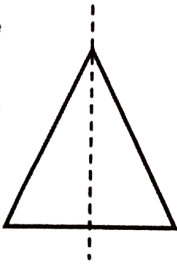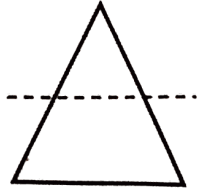# Line Symmetry   Key

A **line of symmetry** divides a figure in half. Both sides of the figure must be exactly the same. Some figures have more than one line of symmetry.
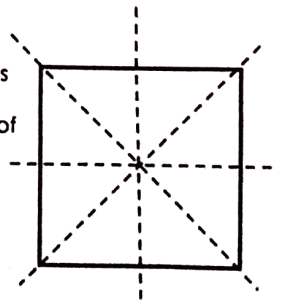
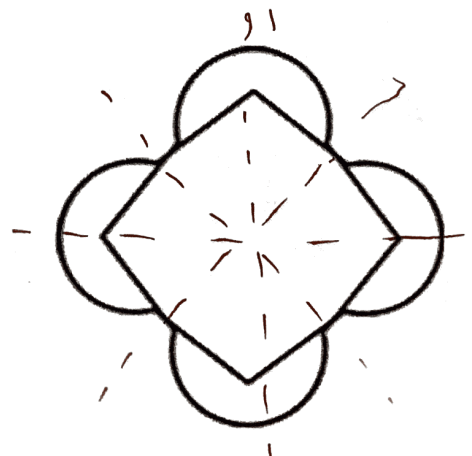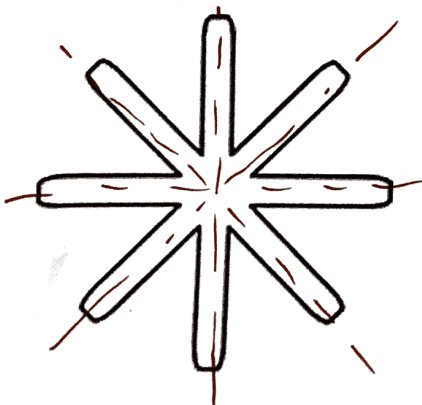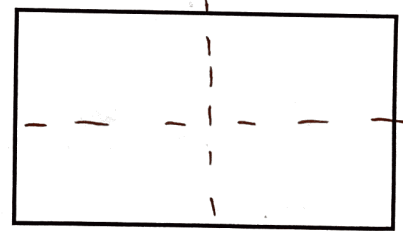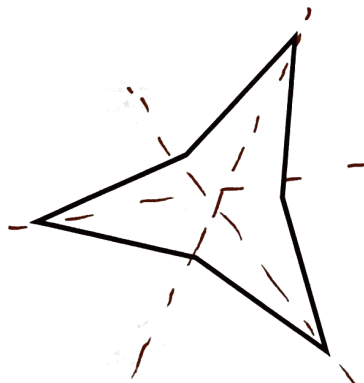Both sides of the triangle look exactly the same. This figure is symmetrical.

The divided sides of the triangle are different. This figure is not symmetrical.

This square has many lines of symmetry. All of the parts are equal.

Draw the lines of symmetry for each figure. Use your GeoReflector to help check your work.
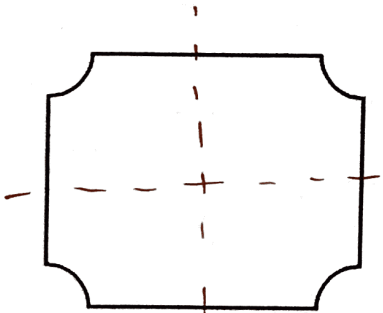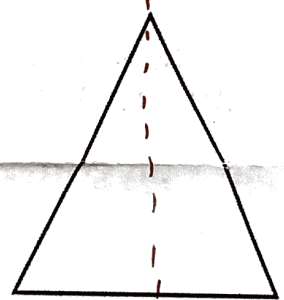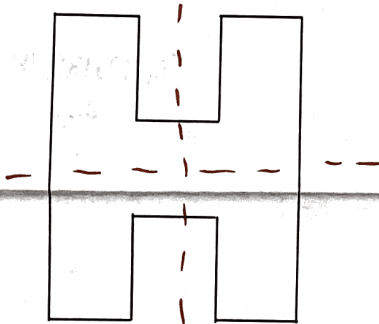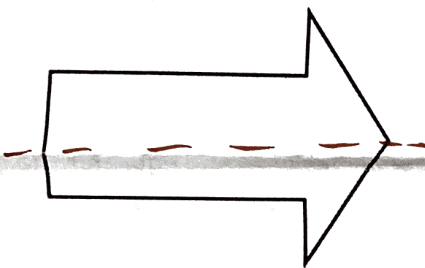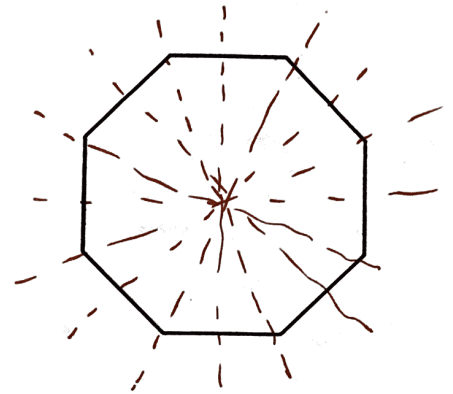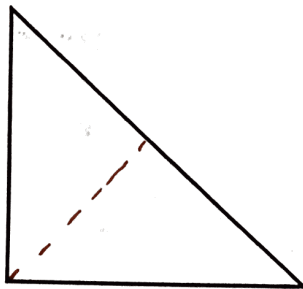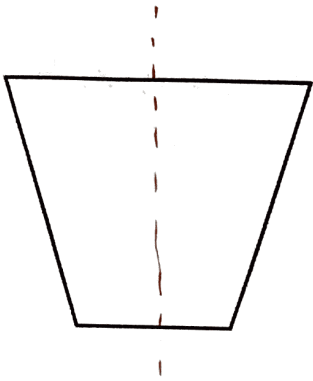
Rotational Symmetry

Rotational symmetry is when an object is rotated around a center point (turned) a number of degrees and the object appears the same.
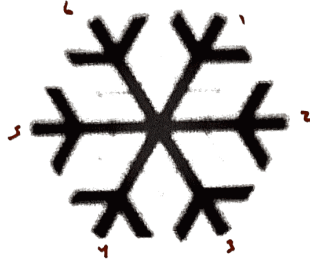
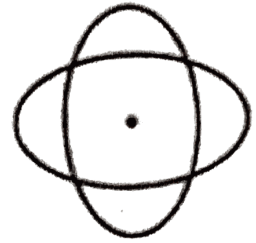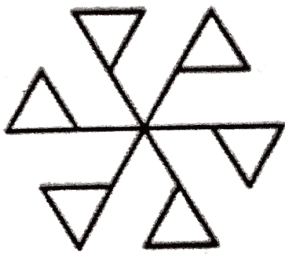## What are all the degrees of rotation for each figure?

180°

O

60°, 120°, 180°, 240°, 300°, 360°

90, 180, 270, 360

72°, 144, 216, 288
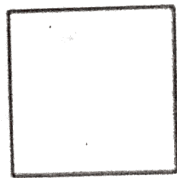
60, 120, 180, 240, 300

O
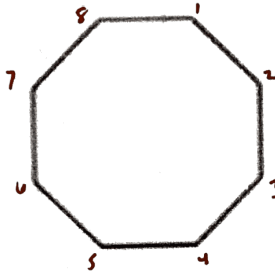
45, 90, 135, 180, 225, 270, 315,
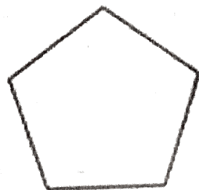
72°, 144, 216, 288

Regular Polygon - a polygon that is equiangular (all angles have equal measure) and equilateral (all sides are equal length)
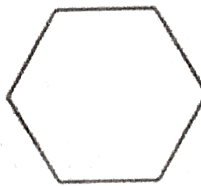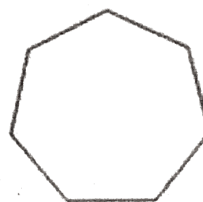
Triangle – 3 sides   Square – 4 sides   Pentagon – 5 sides   Hexagon – 6 sides   Heptagon – 7 sides   Octagon – 8 sides

Number of Sides in regular polygon	Number of Lines of Symmetry	Smallest angle of rotation to map the figure onto itself
3	3	120
4	4	90
5	5	72
6	6	60
7	7	51.4
8	8	45

Do you see a pattern in your chart?