Symmetries and Diagonals of Quadrilaterals

A **polygon** is a closed shape made up of several straight-line segments that are joined together. The sides do not cross each other and exactly two sides meet at every vertex.	**Reflectional Symmetry** – A shape has reflectional symmetry if *there is a line that reflects a figure onto itself.* Draw all of the lines of reflection on the shapes below. Say how many lines of reflection there are.	**Rotational Symmetry** – *If a figure can be rotated onto itself by a rotation, it is said to have rotational symmetry.* Draw the point(s) and write angle measure(s) that would rotate each figure below onto itself.	**Diagonals** – *Lines that connect all non-adjacent vertices of a polygon.* Draw all of the diagonals for each figure below. Say how many diagonals there are.
A **rectangle** is a quadrilateral that contains four right angles.	How Many?	Angle Measure(s):	How Many?
A **parallelogram** is a quadrilateral in which opposite sides are parallel.	How Many?	Angle Measure(s):	How Many?
A **rhombus** is a quadrilateral in which all sides are congruent (the same length)	How Many?	Angle Measure(s):	How Many?
A **square** is both a rectangle and a rhombus. It has 4 right angles and 4 congruent sides.	How Many?	Angle Measure(s):	How Many?
A **trapezoid** is a quadrilateral with one pair of opposite sides parallel.	How Many?	Angle Measure(s):	How Many?

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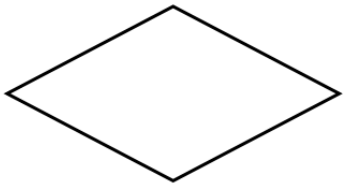
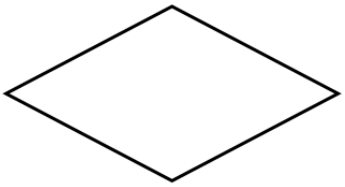
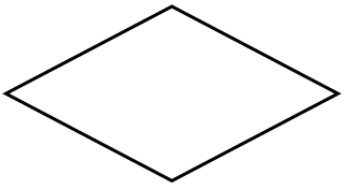
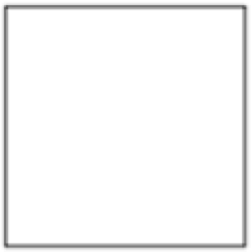
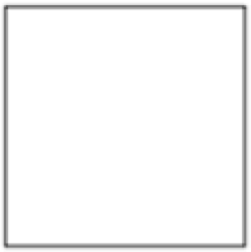
A **rhombus** is a quadrilateral in which all sides are congruent (the same length)	 How Many?	 Angle Measure(s):	 How Many?
A **square** is both a rectangle and a rhombus. It has 4 right angles and 4 congruent sides.	 How Many?	 Angle Measure(s):	 How Many?
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