Chapter 6 Quadrilaterals

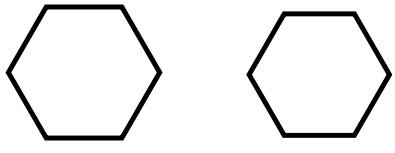
6.1 Polygons

Objective: Identify and classify polygons.

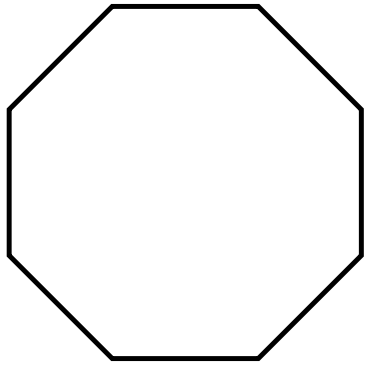
Find angle measures of quadrilaterals.

A polygon is a plane figure that is formed by three or more segments called sides. Each side intersects exactly two other sides at each of its endpoints. Each endpoint is a vertex of the polygon.

Two vertices that are the endpoints of the same side are called consecutive vertices.



A segment that joins two nonconsecutive vertices of a polygon is called a diagonal.

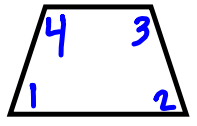


You can classify polygons by the number of sides they have. The most common polygons are:

Number of sides:	Name of polygon:
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon
8	Octagon
9	Nonagon
10	Decagon
12	Dodecagon
n	n-gon

Checkpoint at the bottom of page 304.

Quadrilateral Interior Angles Theorem: The sum of the measures of the interior angles of a quadrilateral is 360 degrees.



$m\angle 1 + m\angle 2 + m\angle 3 + m\angle 4 = 360^\circ$

Checkpoint at the bottom of page 305.