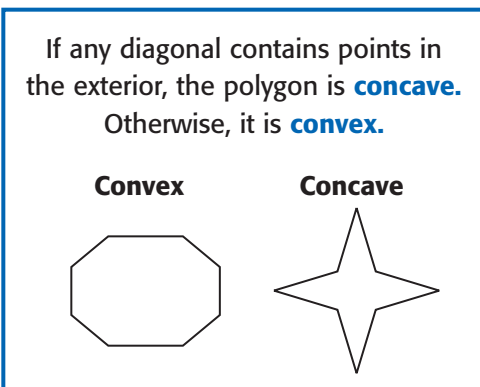
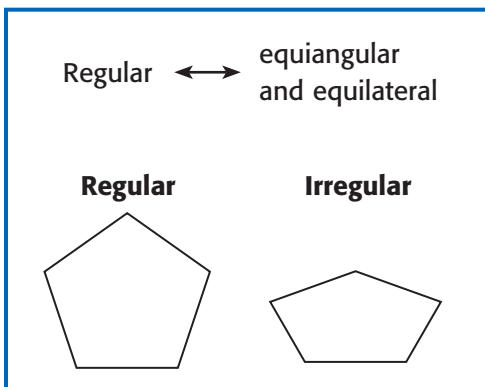


Section Overview

Properties and Attributes of Polygons

Lesson 6-1

Why? Understanding properties of polygons and their angle sums is fundamental to successful work with quadrilaterals.



Theorem

The sum of the interior angle measures of a convex polygon with n sides is $(n - 2)180^\circ$.

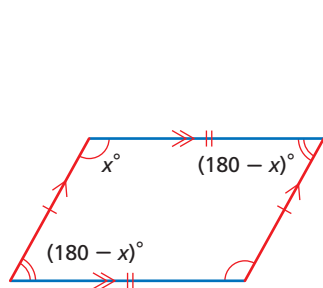
Theorem

The sum of the exterior angle measures, one angle at each vertex, of a convex polygon is 360° .

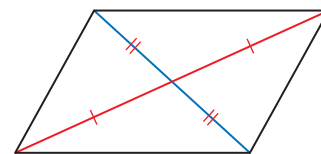
Properties of Parallelograms

Lesson 6-2

Why? The properties of parallelograms make these figures useful in mechanics and construction.



- A quadrilateral is a parallelogram → all of these properties are true.**
- Opposite sides are parallel.
 - Opposite sides are congruent.
 - Opposite angles are congruent.
 - Consecutive angles are supplementary.
 - Diagonals bisect each other.



Conditions for Parallelograms

Lesson 6-3

Why? Understanding the conditions for parallelograms allows manufacturers to use those properties in their products.

One of these conditions is met → the quadrilateral is a parallelogram.

<p>Both pairs of opposite sides are parallel.</p>	<p>Both pairs of opposite sides are congruent.</p>	<p>Both pairs of opposite angles are congruent.</p>
<p>One pair of opposite sides are parallel and congruent.</p>	<p>One angle is supplementary to both of its consecutive angles.</p>	<p>Diagonals bisect each other.</p>