Name_____

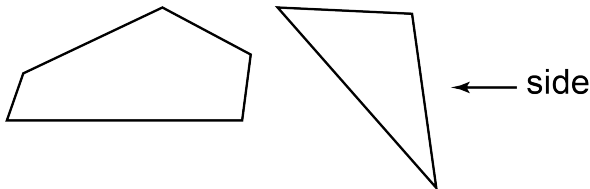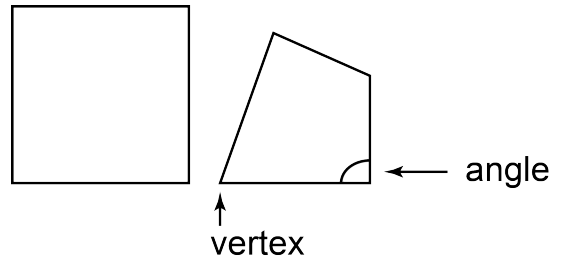## Reteach

A **polygon** is a closed, two-dimensional shape with three or more sides.

A **quadrilateral** is a polygon with four sides. Quadrilaterals have four vertices and four angles.
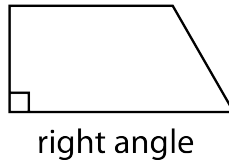
← side

← angle

vertex

Quadrilaterals can have parallel sides and right angles.
Parallel sides are two sides that are always the same distance apart.
A **right angle** is an L-shaped angle.

The symbol ⌐ shows a right angle.

right angle

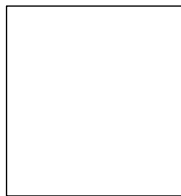**Example** Identify the number of right angles and pairs of parallel sides.

Right angles: 4

Parallel sides: 2

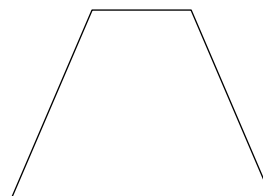Identify the number of right angles and pairs of parallel sides.

1.

Right angles: _____

Pairs of parallel sides: _____

2.

Right angles: _____
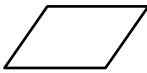
Pairs of parallel sides: _____

Name_____

A quadrilateral has 4 sides and 4 angles. You can identify a quadrilateral using its sides and angles.
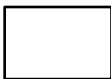
Trapezoid

exactly 1 pair of parallel sides

Parallelogram

2 pairs of parallel sides

Rectangle

2 pairs of parallel sides
4 right angles

Rhombus

2 pairs of parallel sides
4 equal sides

Square

2 pairs of parallel sides
4 equal sides
4 right angles

Example

Circle all of the names for the quadrilateral.

Step 1: Count the pairs of parallel sides. There are 2 pairs of parallel sides.

Step 2: Count the number of equal sides. There are 4 equal sides.

Step 3: Count the number of right angles. There are 4 right angles.

Step 4: Circle quadrilateral names with these properties.
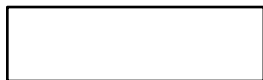
Trapezoid   Rhombus

Square   Parallelogram

Circle all of the names for the quadrilateral.
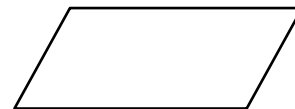
1.

Rectangle   Square

Trapezoid   Parallelogram
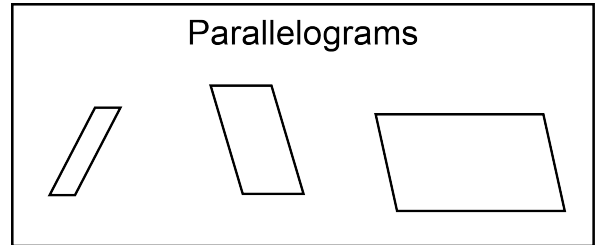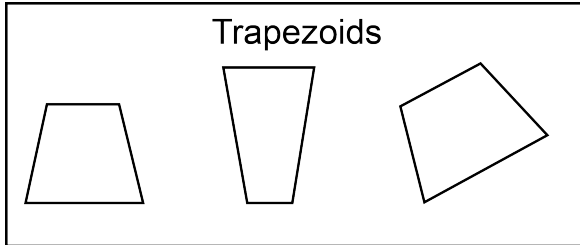
2.

Rectangle   Parallelogram

Square   Rhombus

Name_____

Example

Trapezoids	Parallelograms

How are trapezoids and parallelograms alike?

Think: Do trapezoids and parallelograms have the same number of sides, angles, pairs of parallel sides, or equal sides?

A trapezoid has 4 sides.   A parallelogram has 4 sides.

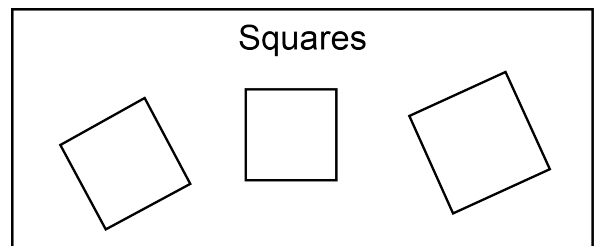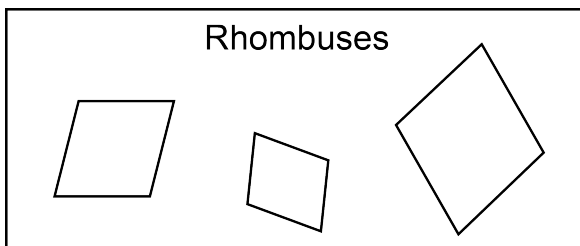A trapezoid has 4 angles.   A parallelogram has 4 angles.

So, you can classify all trapezoids and parallelograms as quadrilaterals.

How are trapezoids and parallelograms different?

Think: Do trapezoids and parallelograms *not* have the same number of sides, angles, pairs of parallel sides, or equal sides?

A trapezoid has exactly one   A parallelogram has two pairs
pair of parallel sides.   of parallel sides.

Rhombuses	Squares

1. How are rhombuses and squares alike? How are they different?

2. How are trapezoids and squares alike? How are they different?

Name_____

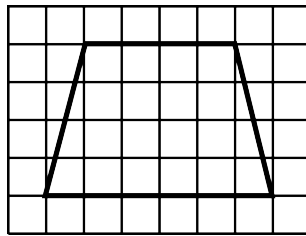### Example

Draw a quadrilateral that has exactly one pair of parallel sides. Name the quadrilateral.
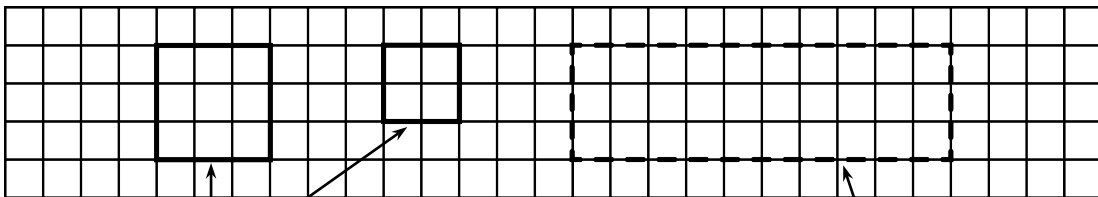
This shape has 4 angles.
A quadrilateral has 4 angles.

This shape has exactly one pair of parallel sides.

This shape has 4 sides.
A quadrilateral has 4 sides.

A trapezoid has 4 angles, 4 sides, and exactly one pair of parallel sides. So, this quadrilateral is a trapezoid.
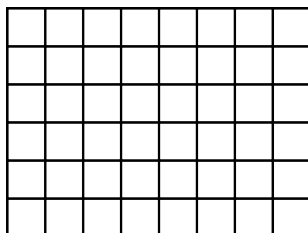
Below are two squares. Draw a quadrilateral that is *not* a square. Explain why it is not a square.

Squares have 2 pairs of parallel sides, 4 equal sides, and 4 right angles.

This is a rectangle. It is *not* a square because it does not have 4 equal sides.

1. Draw a quadrilateral that has two pairs of parallel sides. Name the quadrilateral.

2. Draw a quadrilateral that is *not* a rectangle. Explain why it is not a rectangle.