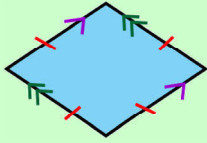# Classifying Quadrilaterals 2

Below are definitions for certain special quadrilaterals. Study them carefully.
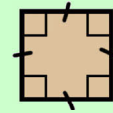Note: If two sides of a shape are **congruent**, it means they have the same length.

A **rhombus** (a diamond) has four congruent sides. It also has two pairs of parallel sides.

We mark each congruent side with a little tick mark. The plural of rhombus is "rhombi" or "rhombuses".
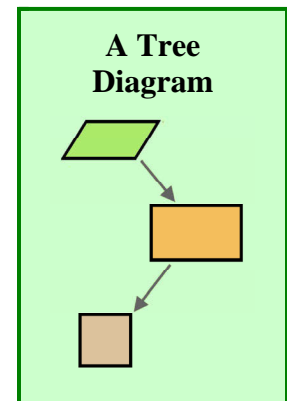
A **rectangle** has four right angles.

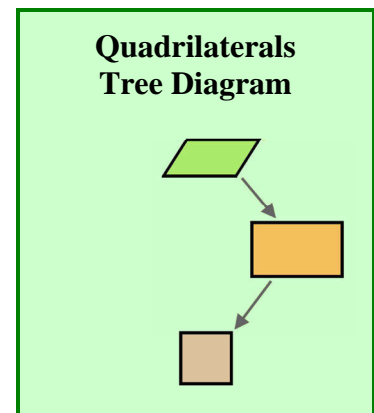We mark a right angle with a small square.

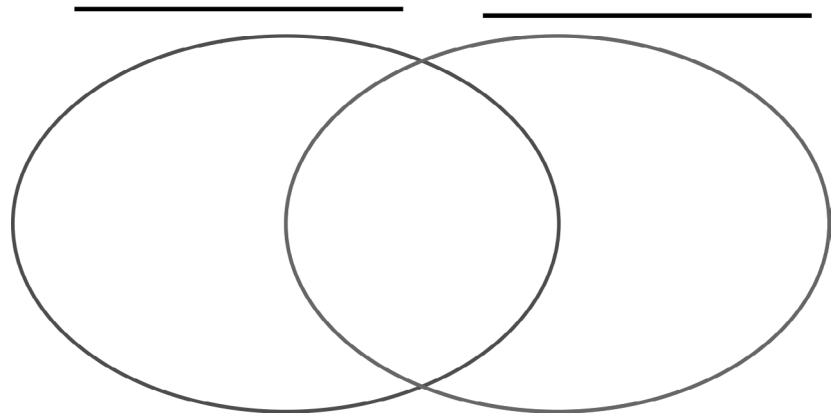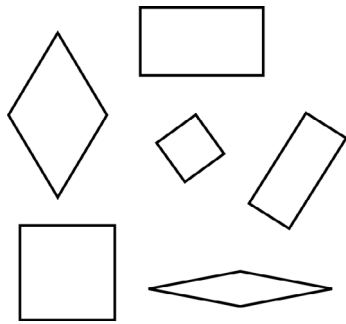A **square** has four right angles *and* four congruent sides.

1. Does a square fulfill the definition of a rhombus?

2. In the tree diagram on the right, you see a rectangle, a parallelogram, and a square. Start "reading" the tree diagram from the top, beginning with the parallelogram. Fill in:

   **a.** The _____ is like a "child" to the parallelogram:
   it *is* a parallelogram. Additionally, its angles are right angles.

   **b.** The square is like a "child" to the _____ : it, too, has four right angles.
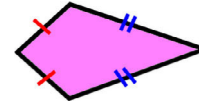
   Additionally, _____.

**A Tree Diagram**

3. Where in this tree diagram would a rhombus belong? Explain.

**Quadrilaterals Tree Diagram**

4. Below, you see six shapes. Sketch them in the Venn diagram, and label the two sets, in a manner that makes sense.
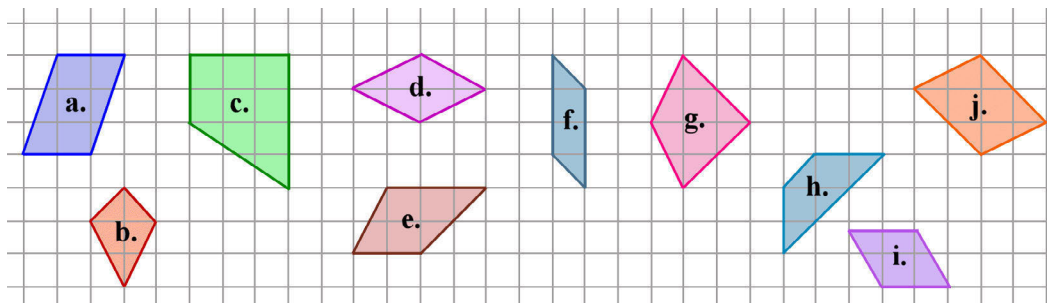
_____          _____

A **kite** is a quadrilateral with two pairs of congruent sides that are **adjacent** (touch each other).

5. Do these quadrilaterals also fulfill the definition of a kite?

**a.** rhombus

**b.** rectangle

**c.** square

**d.** trapezoid

6. Each quadrilateral below is either a parallelogram, a rhombus, a trapezoid, or a kite. Write their names.

**a.** _____

**b.** _____

**c.** _____

**d.** _____

**e.** _____

**f.** _____

**g.** _____

**h.** _____

**i.** _____

**j.** _____