

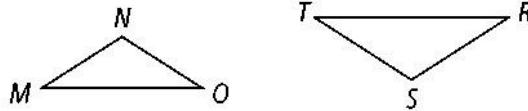
7-2

Practice

Similar Polygons

List the pairs of congruent angles and the extended proportion that relates the corresponding sides for the similar polygons.

1. $\triangle MNO \sim \triangle RST$



Determine whether the polygons are similar.

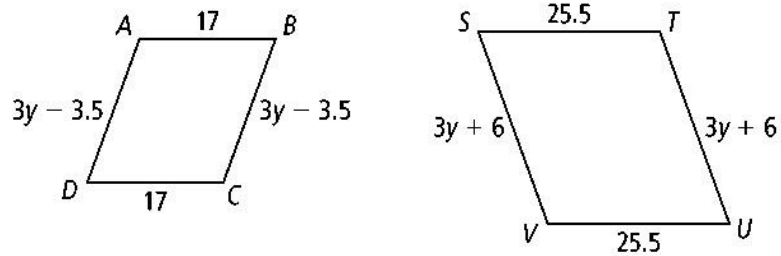
2. an equilateral triangle with side length 6 and an equilateral triangle with side length 15
3. a triangle with side lengths 3 cm, 4 cm, and 5 cm, and a triangle with side lengths 18 cm, 19 cm, and 20 cm
4. An architect is making a scale drawing of a building. She uses the scale 1 in. = 15 ft.
 - a. If the building is 48 ft tall, how tall should the scale drawing be?
5. A scale drawing of a building was made using the scale 15 cm = 120 ft. If the scale drawing is 45 cm tall, how tall is the actual building?

Determine whether each statement is *always*, *sometimes*, or *never* true.

5. Two squares are similar.
6. Two hexagons are similar.
7. Two similar triangles are congruent.
8. A rhombus and a pentagon are similar.

Algebra Find the value of y . Give the scale factor of the polygons.

11. $ABCD \sim TSVU$



In the diagram below, $\triangle PRQ \sim \triangle DEF$. Find

6. the scale factor of $\triangle PRQ$ to $\triangle DEF$

