Objective 1  Identify Similar Polygons

Similar figures have the same shape but not necessarily the same size. Two polygons are similar if corresponding angles are congruent and if the lengths of corresponding sides are proportional.

Work Video Exercise 1 with me.

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

1. $RSTV \sim DEFG$

A(n) ________ ________ is the ratio of corresponding linear measurements of two similar figures.
Pause and work Video Exercises 2 & 3.

Determine whether the polygons are similar. If they are, write a similarity statement and give the scale factor. If not, explain.

2.

3.

Pause and work Video Exercise 4.

The polygons are similar. Find the value of each variable.

4.
Work Video Exercise 5 with me.

5. You want to make a scale drawing of New York City’s Empire State building using the scale 1 in. = 250 ft. If the building is 1250 ft tall, how tall should you make the building in your scale drawing?