

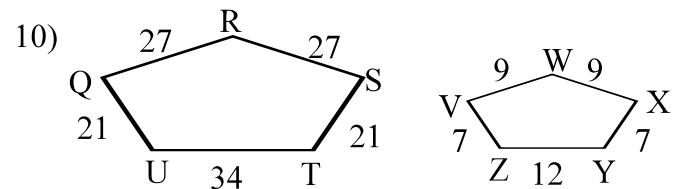
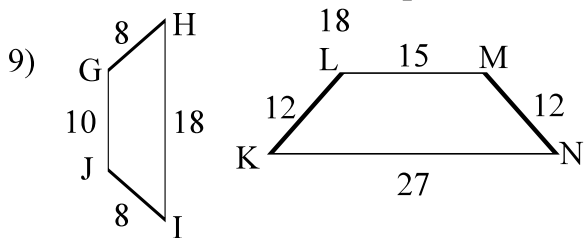
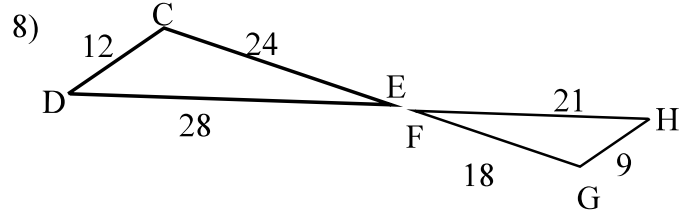
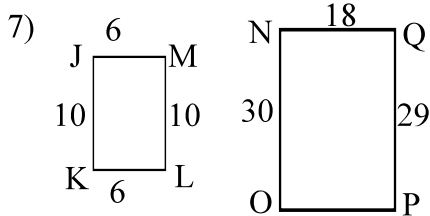
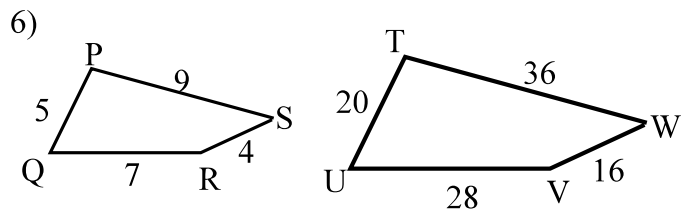
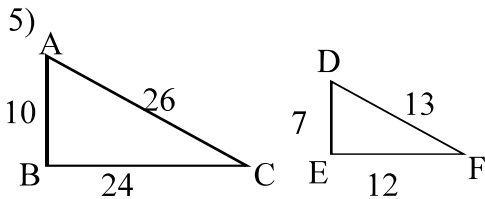
Ratios and Proportions 2.1

Geometry

On a wall map of the United States, the scale is 1 inch = 50 miles. Answer the following questions.

- 1) On the map, the distance from Omaha NE to Atlanta GA is 20 inches. What is the actual distance?
- 2) On the map, the distance from Albuquerque, NM to Tampa, FL is 34.5 inches. What is the actual distance?
- 3) The distance from Salt Lake City, UT to Albany, NY is 2,250 miles. What is the distance on the map?
- 4) The distance from San Diego, CA to Boise, ID is 975 miles. What is the distance on the map?

Determine whether the figures in each problem are similar. If they are, give a similarity statement and the scale factor.



(Use the back of the worksheet for problems 11-13.)

11) Joe, a strapping 6 foot tall young man, is standing next to a large oak tree. He thinks to himself, "I wonder how tall this tree is?" He removes a handy tape measure from his knapsack and measures the tree's shadow. It is 120 feet long. With some help from a friend he finds that his own shadow measures 10 feet. Use a proportion to find the height of the tree.

12) Bill and Stanley are young men of proportional strength. Bill, who weighs 140 lbs., dead lifts 250 lbs. If Stanley weighs 230 lbs., how much does he dead lift? If Stanley dead lifts 500 lbs., how much does he weigh? Use proportions to find your answer.

13) Sally is grocery shopping. She can purchase a 2 lb. bag of pinto beans for \$3.29, or she can buy in bulk and get a 15 lb. bag of beans for \$21.79. Which is a better price? If Sally were to buy 30 lbs. of beans, how much less expensive would the better buy be? Use proportions to find your answer.