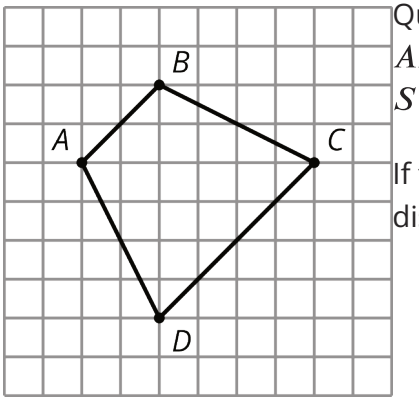
Lesson 3 Practice Problems

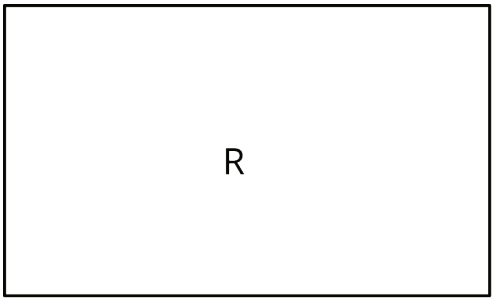
1. Here is Quadrilateral $ABCD$.

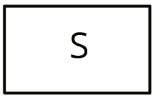


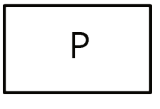
Quadrilateral $PQRS$ is a scaled copy of Quadrilateral $ABCD$. Point P corresponds to A, Q to B, R to C, and S to D.

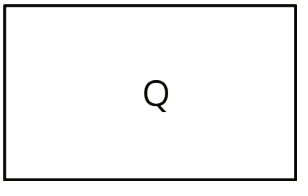
If the distance from P to R is 3 units, what is the distance from Q to S? Explain your reasoning.

2. Rectangles P, Q, R, and S are scaled copies of one another. For each pair, decide if the scale factor from one to the other is greater than 1, equal to 1, or less than 1.









a. from P to Q

b. from P to R

c. from Q to S

d. from Q to R

e. from S to P

f. from R to P

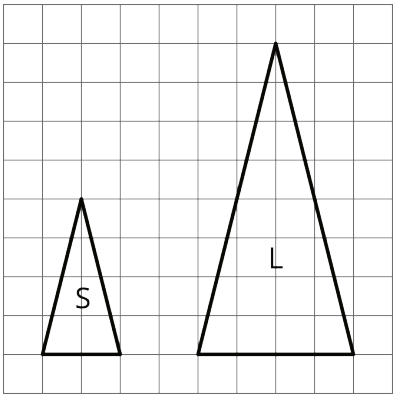
g. from P to S

3. Triangle S and Triangle L are scaled copies of one another.

   a. What is the scale factor from S to L?

   b. What is the scale factor from L to S?

   c. Triangle M is also a scaled copy of S. The scale factor from S to M is $\frac{3}{2}$. What is the scale factor from M to S?

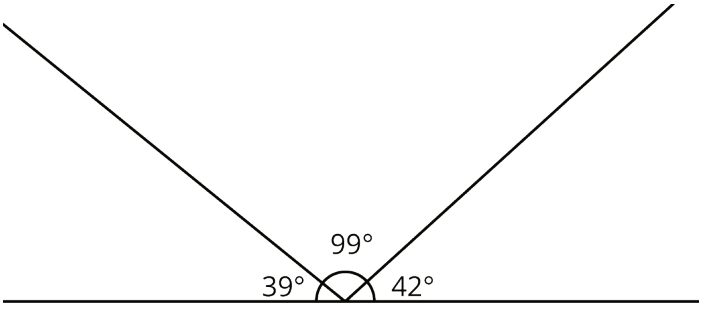


4. Are two squares with the same side lengths scaled copies of one another? Explain your reasoning.

5. Quadrilateral A has side lengths 2, 3, 5, and 6. Quadrilateral B has side lengths 4, 5, 8, and 10. Could one of the quadrilaterals be a scaled copy of the other? Explain.

(From Unit 2, Lesson 2.)

6. The line has been partitioned into three angles.



Is there a triangle with these three angle measures? Explain.

(From Unit 1, Lesson 13.)