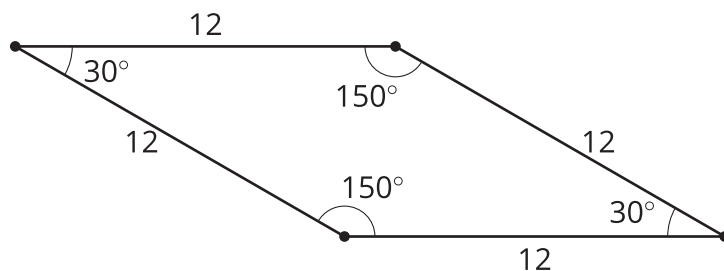


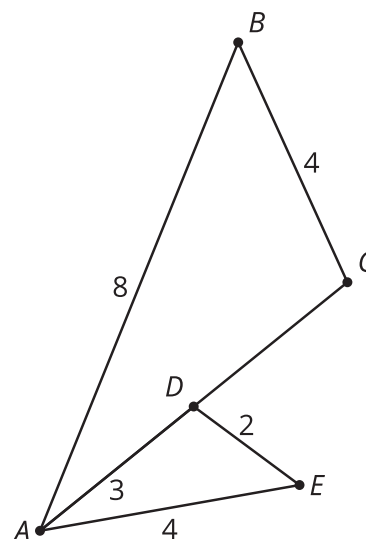
Lesson 7 Practice Problems

1. Sketch a figure that is similar to this figure. Label side and angle measures.



2. Write 2 different sequences of transformations that would show that triangles ABC and AED are similar. The length of AC is 6 units.

$AC = 6$



3. What is the definition of similarity?

(From Unit 3, Lesson 6.)

4. Select **all** figures which are similar to Parallelogram *P*.

Parallelogram *P*

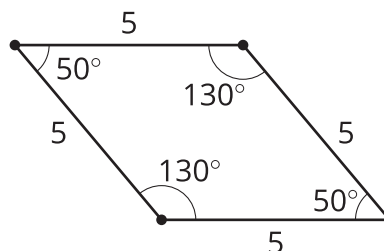


Figure *A*

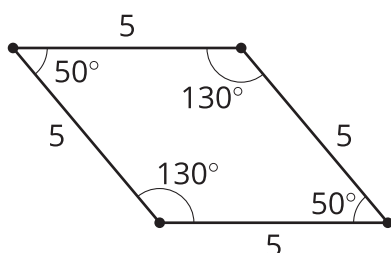


Figure *B*

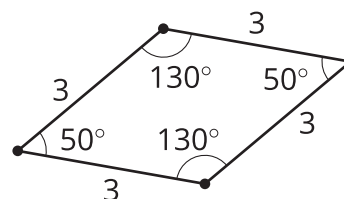


Figure *C*

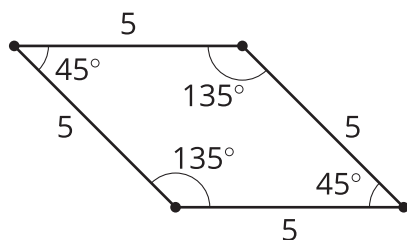


Figure *D*

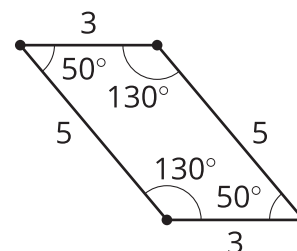
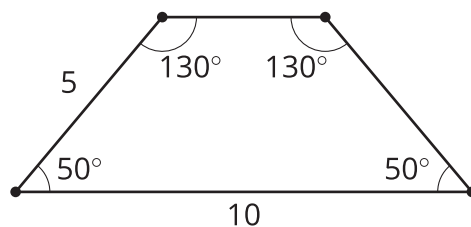


Figure *E*



A. Figure *A*

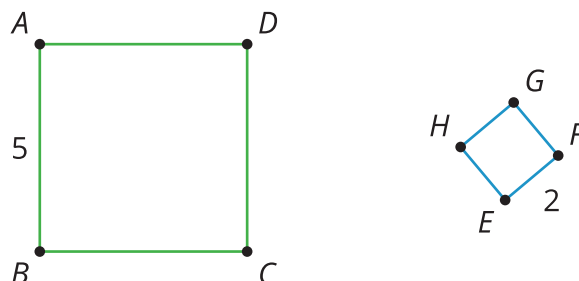
B. Figure *B*

C. Figure *C*

D. Figure *D*

E. Figure *E*

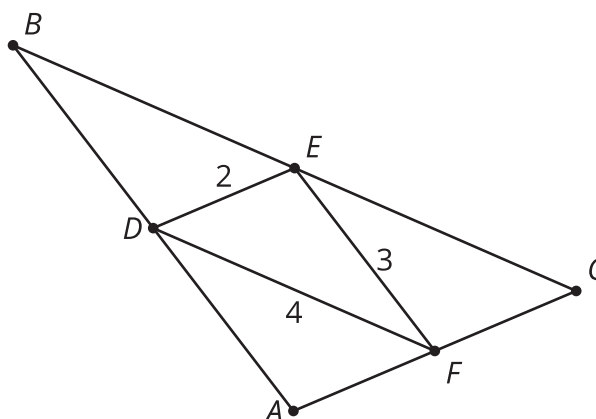
5. Find a sequence of rigid transformations and dilations that takes square $ABCD$ to square $EFGH$.



- A. Translate by the directed line segment AE , which will take B to a point B' . Then rotate with center E by angle $B'EF$. Finally, dilate with center E by scale factor $\frac{5}{2}$.
- B. Translate by the directed line segment AE , which will take B to a point B' . Then rotate with center E by angle $B'EF$. Finally, dilate with center E by scale factor $\frac{2}{5}$.
- C. Dilate using center E by scale factor $\frac{2}{5}$.
- D. Dilate using center E by scale factor $\frac{5}{2}$.

(From Unit 3, Lesson 6.)

6. Triangle DEF is formed by connecting the midpoints of the sides of triangle ABC . What is the perimeter of triangle ABC ?



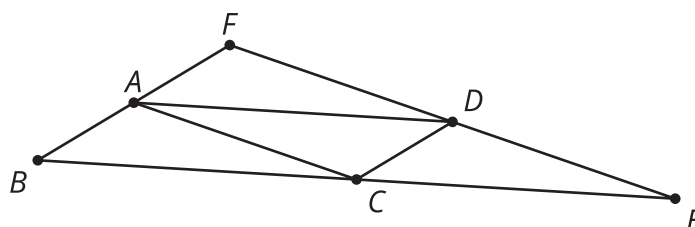
(From Unit 3, Lesson 5.)

7. Select the quadrilateral for which the diagonal is a line of symmetry.

- A. parallelogram
- B. square
- C. trapezoid
- D. isosceles trapezoid

(From Unit 2, Lesson 14.)

8. Triangles FAD and DCE are each translations of triangle ABC



Explain why angle CAD has the same measure as angle ACB .

(From Unit 1, Lesson 21.)