LESSON 8.3

NAME _____ DATE _____

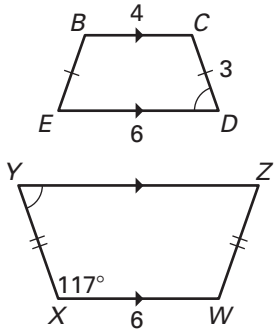
Practice C

For use with pages 473–479

List all pairs of congruent angles and write the statement of proportionality for the figures.

1. $\triangle STU \sim \triangle CDE$
2. $\triangle LMN \sim \triangle GHI$
3. quadrilateral $QRST \sim$ quadrilateral $ABCD$

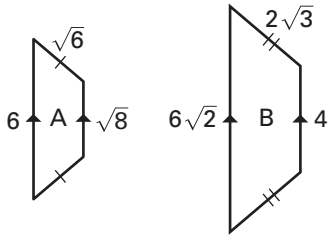
In the diagram quadrilateral *BCDE* ~ quadrilateral *WXYZ*.



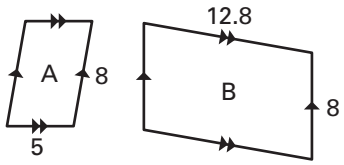
4. Find the scale factor of quadrilateral *BCDE* to quadrilateral *WXYZ*.
5. Find the scale factor of quadrilateral *WXYZ* to quadrilateral *BCDE*.
6. Find the length of $\overline{XY}$.
7. Find the measure of $\angle D$.
8. Find the perimeter of quadrilateral *WXYZ*.
9. Find the ratio of the perimeter of *WXYZ* to the perimeter of *BCDE*.

Decide whether the polygons are similar. If so, find the scale factor of Figure A to Figure B.

10.

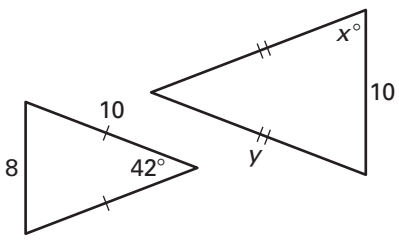


11.

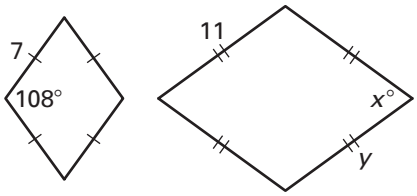


The two polygons are similar. Find the values of *x* and *y*.

12.



13.



14. The ratio of one side of $\triangle ABC$ to the corresponding side of similar $\triangle DEF$ is 5:8. The perimeter of $\triangle DEF$ is 96 inches. What is the perimeter of $\triangle ABC$?
15. The perimeter of $\square ABCD$ is 60 centimeters. The perimeter of $\square EFGH$ is 15 centimeters and $\square ABCD \sim \square EFGH$. The lengths of two of the sides of $\square ABCD$ are 18 centimeters each. Find the scale factor of $\square ABCD$ to $\square EFGH$, and the lengths of the sides of $\square EFGH$.