Lesson 8.2 Practice: Similar Polygons

School Launch · Geometry · Unit 8: Similarity · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. $ABCD \sim EFGH$. $AB = 15$, $EF = 10$ and $BC = 39$. Find FG and the scale factor. EASY

2. $ABCD \sim EFGH$. $AB = 33$, $EF = 44$ and $BC = 42$. Find FG and the scale factor. EASY

3. $ABCD \sim EFGH$. $AB = 6$, $EF = 9$ and $BC = 6$. Find FG and the scale factor. EASY

4. $ABCD \sim EFGH$. $AB = 4$, $EF = 8$ and $BC = 10$. Find FG and the scale factor. MEDIUM

5. $ABCD \sim EFGH$. $AB = 9$, $EF = 12$ and $BC = 27$. Find FG and the scale factor. MEDIUM

6. $ABCD \sim EFGH$. $AB = 12$, $EF = 48$ and $BC = 14$. Find FG and the scale factor. MEDIUM

7. $ABCD \sim EFGH$. $AB = 11$, $EF = 33$ and $BC = 11$. Find FG and the scale factor. MEDIUM

8. Two polygons are similar with corresponding sides 7 and 21. The first has perimeter 46. Find the second perimeter and the ratio of areas. HARD

9. Two polygons are similar with corresponding sides 9 and 12. The first has perimeter 90. Find the second perimeter and the ratio of areas. HARD

10. Two polygons are similar with corresponding sides 24 and 16. The first has perimeter 135. Find the second perimeter and the ratio of areas. HARD