

Similar Polygons

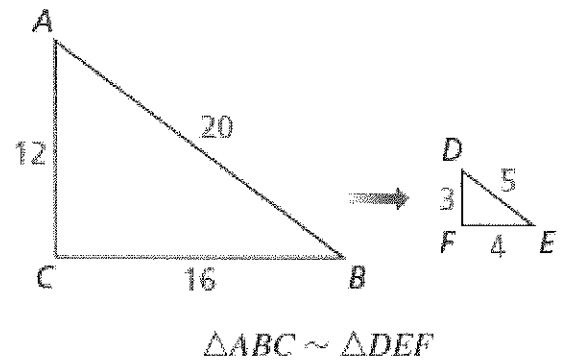
- For two figures to be similar, the corresponding angles must be _____, and the corresponding side lengths must be _____.
- Which question has a different answer? Explain your reasoning by finding the answer to each question.

What is the scale factor?

What is the ratio of their areas?

What is the ratio of their corresponding side lengths?

What is the ratio of their perimeters?



Scale Factor = _____

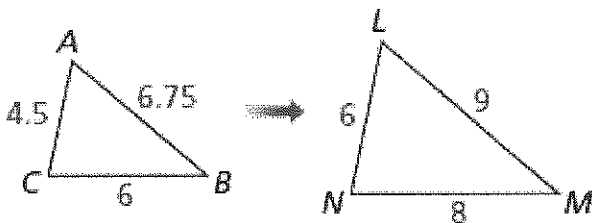
Ratio of the Areas = _____

Ratio of the Side Lengths = _____

Ratio of the Perimeters = _____

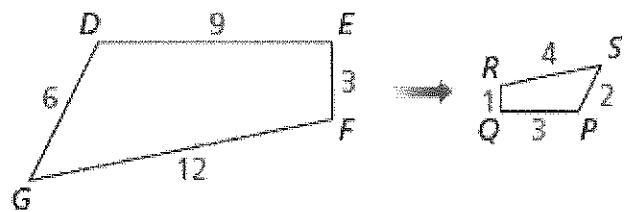
3. $\Delta ABC \sim \Delta LMN$

Scale Factor = _____



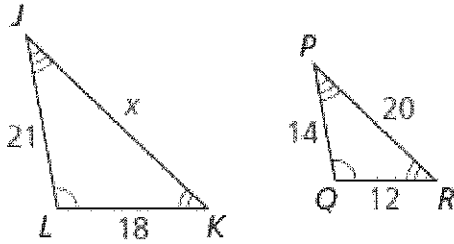
4. $DEFG \sim PQRS$

Scale Factor = _____

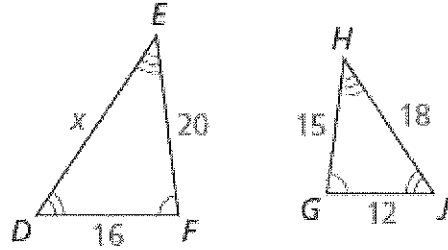


For #5 - 8, the polygons are similar. Find the value of x .

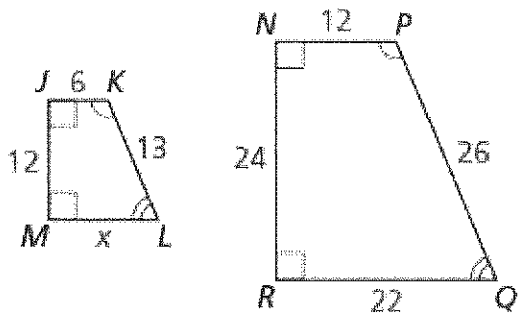
5. $x =$ _____



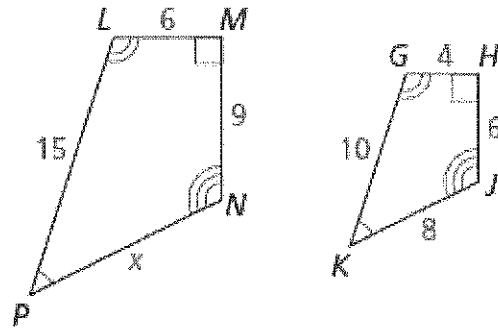
6. $x =$ _____



7. $x =$ _____

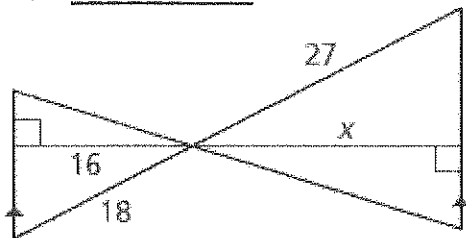


8. $x =$ _____

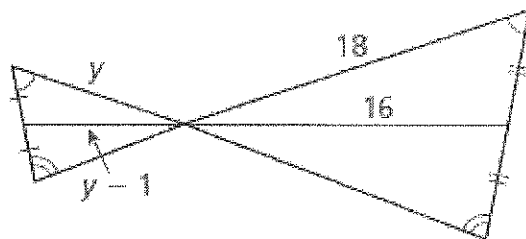


For #9 - 10, the triangles are similar. Find the value of the variable.

9. $x =$ _____



10. $y =$ _____



Chapter 8 Section 1 - Homework

Date Due _____

For #23 - 29, JKLM ~ EFGH

23. Find the scale factor of JKLM to EFGH.

Scale Factor = _____

24. Find the scale factor of EFGH to JKLM.

Scale Factor = _____

25. Find the values of x , y , and z .

$x =$ _____

$y =$ _____

$z =$ _____

26. Find the perimeter of each polygon.

Perimeter_{EFGH} = _____

Perimeter_{JKLM} = _____

27. Find the ratio of the perimeters of JKLM to EFGH.

Ratio = _____

28. Find the area of each polygon.

Area_{EFGH} = _____

Area_{JKLM} = _____

29. Find the ratio of the areas of JKLM to EFGH.

Ratio = _____

Name _____

Period _____

