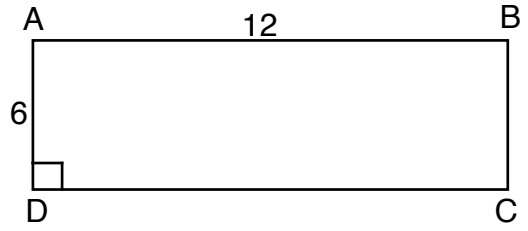
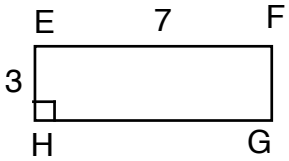
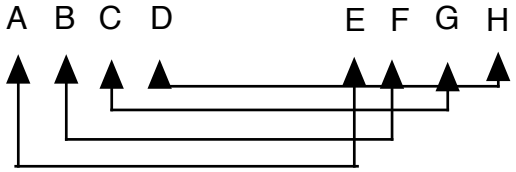
Chapter 5: Similarity
Lesson 5-2: Similar Polygons
Homework

Name_____
Date _____
Period ___





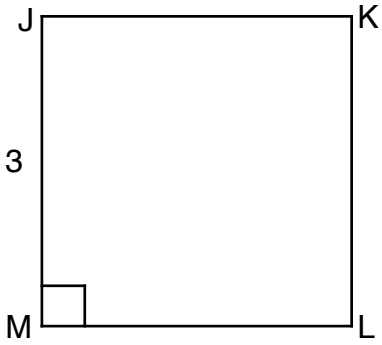
Match the vertices of rectangles ABCD and EFGH like this:

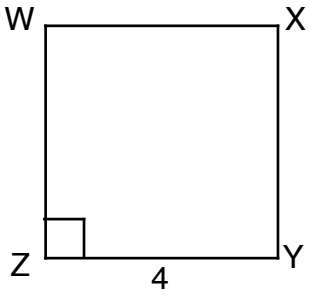


1. Are corresponding angles congruent? _____

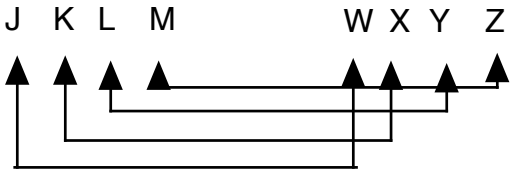
2. Are corresponding sides in proportion? _____

3. Are the two rectangles similar? _____





Match the vertices of squares JKLM and WXYZ like this:

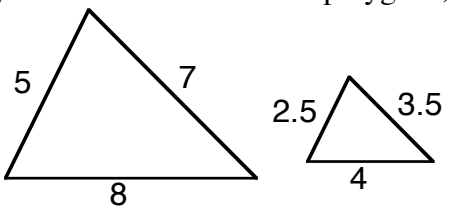


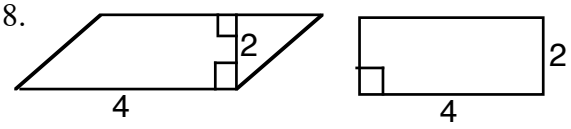
4. Are corresponding angles congruent? _____

5. Are corresponding sides in proportion? _____

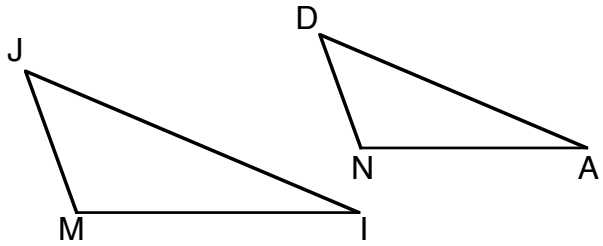
6. Are the two rectangles similar? _____

Using the definition of similar polygons, state why the two polygons are, or are not, similar.

7. 

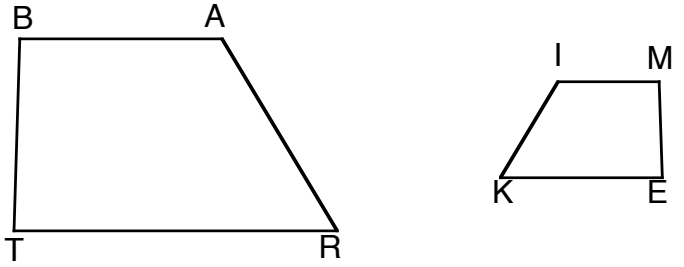
8. 

The two polygons are similar. Complete each statement.

9. 

Δ JIM ~ Δ _____

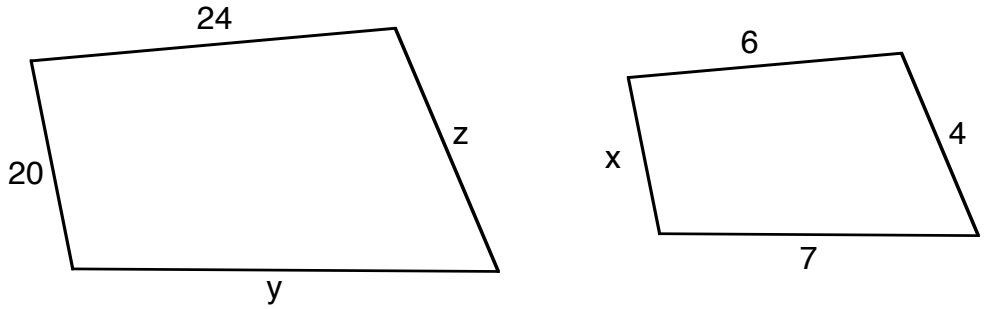
$$\frac{JI}{DA} = \frac{IM}{} = \frac{JM}{}$$

10 

Trapezoid BART ~ Trapezoid _____

$$\frac{BA}{MI} = \frac{BT}{} = \frac{RT}{} = \frac{AR}{}$$

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



11. Scale factor = _____

Proportion for x

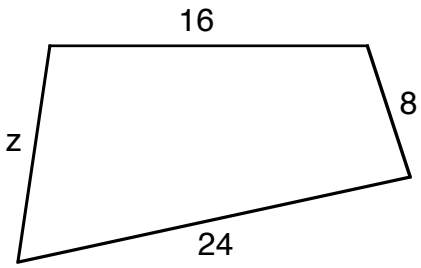
12. Scale factor = _____

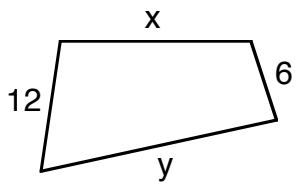
Proportion for y

13. Scale factor = _____

Proportion for z

x = _____ y = _____ z = _____





14. Scale factor = _____

Proportion for x

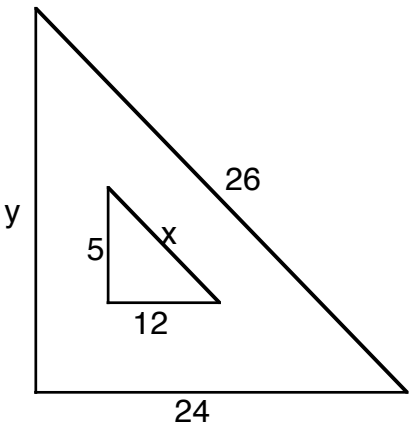
15. Scale factor = _____

Proportion for y

16. Scale factor = _____

Proportion for z

x = _____ y = _____ z = _____



17. Scale factor = _____

Proportion for x

18. Scale factor = _____

Proportion for y

x = _____ y = _____