Name_____ PER: _____

Unit 6 – Ticket To Retake

#1-3 Solve for the variable.

1. $\frac{54}{9x} = \frac{3}{2}$

2. $\frac{4}{5} = \frac{x+15}{70}$

3. $\frac{2}{x+1} = \frac{3}{x+8}$

#4-6 Use the proportion $\frac{x}{z} = \frac{6}{5}$ to complete each statement.

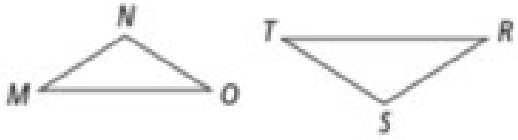
4. $\frac{x}{6} = -$

5. $\frac{z}{x} = -$

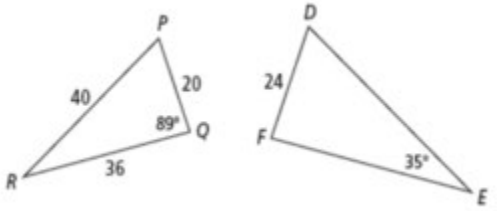
6. 5x = _____

7. List the pairs of congruent angles and the extended proportion that relates the corresponding sides for the similar polygons

$\Delta MNO \sim \Delta RST$



8. In the diagram below, ΔPRQ ~ ΔDEF. Find each of the following.



a. The scale factor of ΔPRQ ~ ΔDEF.

b. m∠D =

c. m∠R

d. m∠P

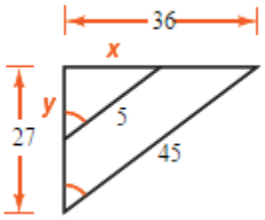
e. DE

f. FE

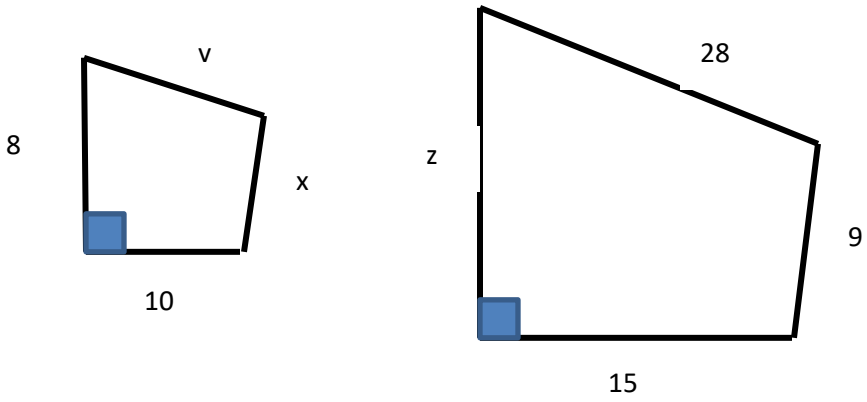
#9-10 Find the variable

9. x =

10. y =

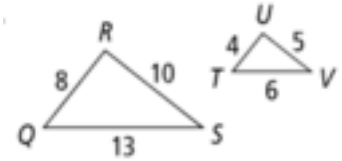


11. The quadrilaterals are similar. Find the scale factor of the larger quadrilateral to the smaller, then find x, v and z.

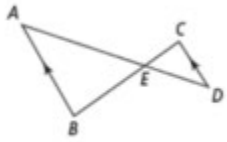


#12-15 Determine whether the triangles are similar. If so, write a similarity statement and name the postulate or theorem you used.

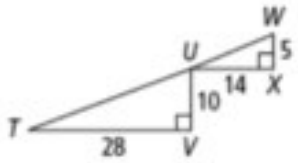
12.



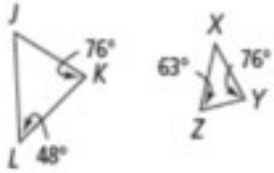
13.



14.

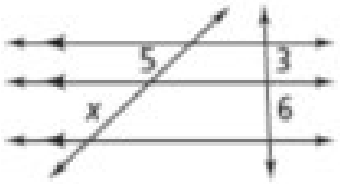


15.

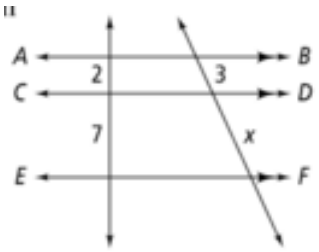


16. A company makes decorative flags. The smallest one they make is 4 ft by 7 ft. If the longest side in the largest flag they make is 35 ft. What is the smaller dimension?

17. Find x

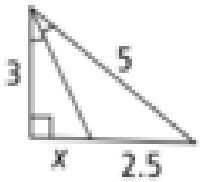


18. Find BF

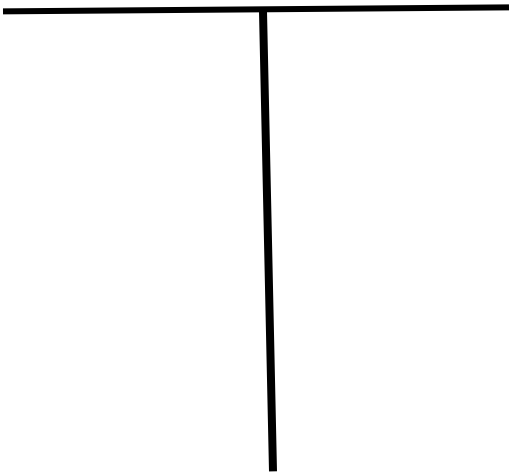


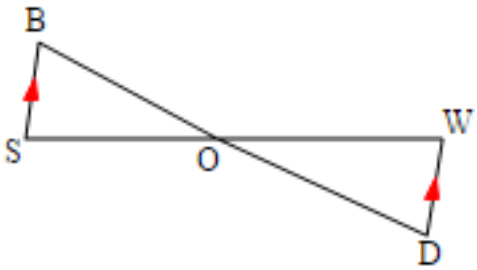
19. Find x

20. Find x

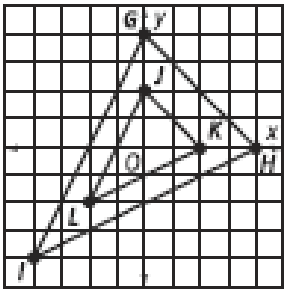


21. Given BS || WD
Prove ΔBSO ~ ΔDWO





22. $\Delta GHI \sim \Delta JKL$



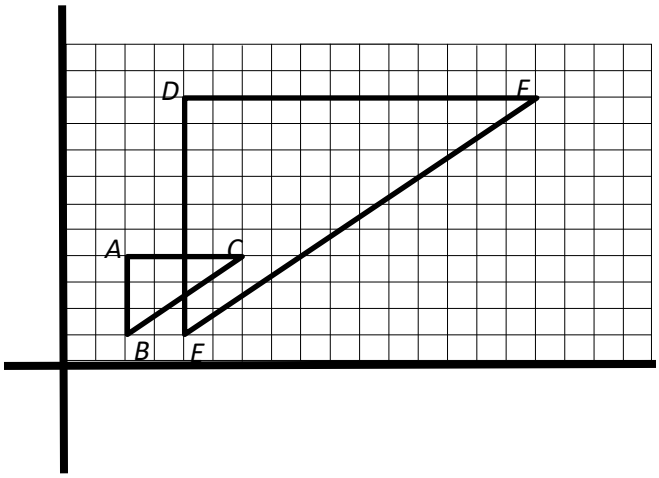
a. What is the scale factor?

b. What is the center of the dilation?

c. Are the corresponding angles congruent?

d. Are the corresponding sides similar?

23.



a. What is the scale factor?

b. What is the center of the dilation?

c. Are the corresponding angles congruent?

d. Are the corresponding sides similar?

e. Write a triangle similarity statement.