

SIMILARITY REVIEW



NAME _____ DATE _____ PERIOD _____

Solve the following proportions:

1. $\frac{9}{x-7} = \frac{27}{12}$

2. $\frac{2x-3}{42} = \frac{15}{10}$

3. $\frac{x+5}{9} = \frac{8}{6}$

4. $\frac{4}{x} = \frac{25}{5x+5}$

5. $\frac{8}{-10} = \frac{x}{5}$

6. $\frac{x+8}{2x-4} = \frac{2}{3}$

If $\frac{7}{a} = \frac{2}{b}$ which of the following must be true?

7. $7a = 2b$

8. $2a = 7b$

9. $\frac{a}{7} = \frac{b}{2}$

10. $\frac{7}{2} = \frac{b}{a}$

11. $\frac{7}{2} = \frac{a}{b}$

12. $\frac{7+b}{b} = \frac{a+2}{a}$

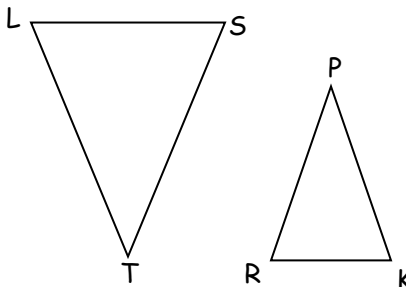
Find the geometric mean of the following numbers.

13. 8 and 2

14. 3 and 15

15. 10 and 15

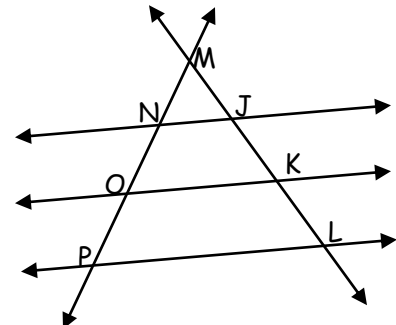
16. $\triangle LST \sim \triangle RKP$



CONGRUENT ANGLES:

STATEMENT OF PROPORTIONALITY:

17. Use the figure to complete the proportions.



a. $\frac{MN}{NO} = \frac{MJ}{?}$

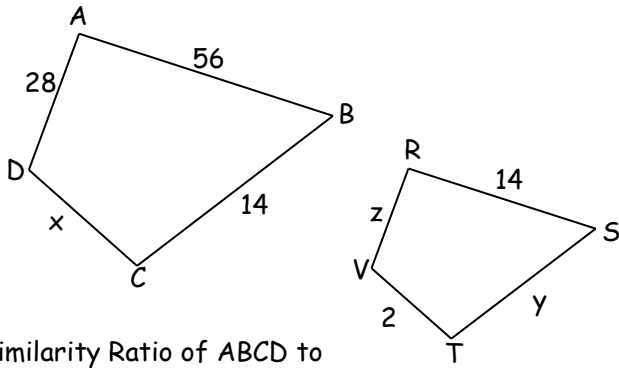
b. $\frac{JK}{KL} = \frac{?}{OP}$

c. $\frac{NP}{NO} = \frac{JL}{?}$

d. $\frac{ML}{MP} = \frac{?}{MN}$

Find the missing variables.

18.

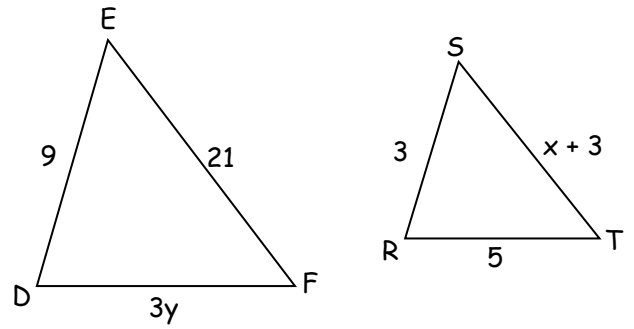


Similarity Ratio of ABCD to RSTV: _____

$x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$

$z = \underline{\hspace{2cm}}$

19.

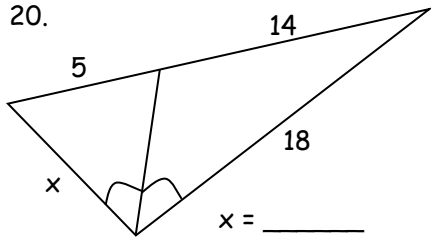


Similarity Ratio of $\triangle RST$ to $\triangle DEF$: _____

$x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$

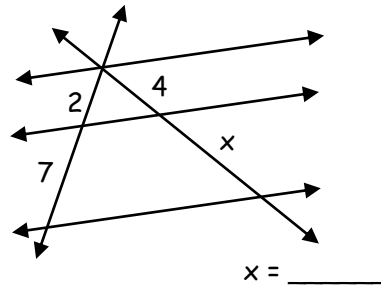
Solve for X.

20.



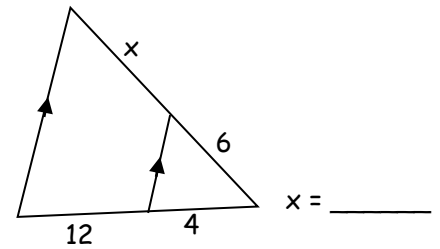
$x = \underline{\hspace{2cm}}$

21.



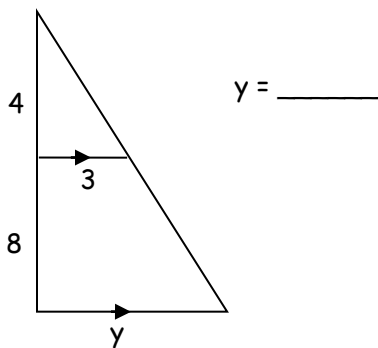
$x = \underline{\hspace{2cm}}$

22.



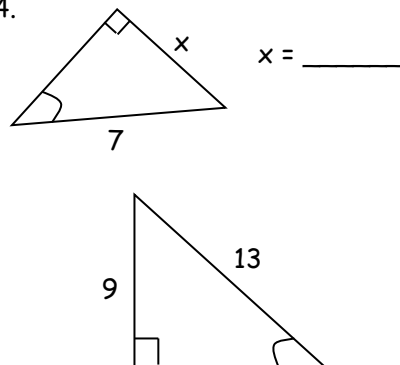
$x = \underline{\hspace{2cm}}$

23.



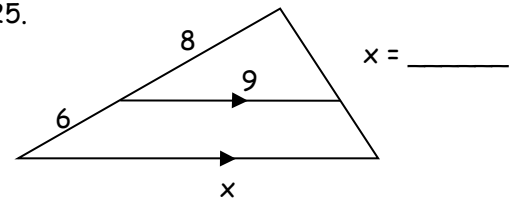
$y = \underline{\hspace{2cm}}$

24.



$x = \underline{\hspace{2cm}}$

25.



$x = \underline{\hspace{2cm}}$

Solve the following. Draw a picture.

26. A man 6 feet tall casts a shadow that is 11 feet long. A building casts a shadow of 132 feet long. What is the height of the building?

Solve for X.

