

1. Define the following:

Period \_\_\_\_\_

Corresponding Sides – \_\_\_\_\_

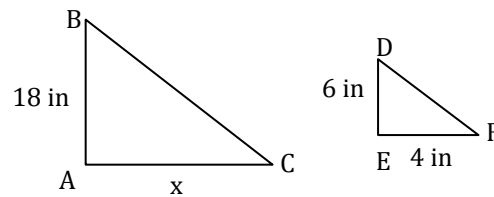
Ratio – \_\_\_\_\_

Proportion – \_\_\_\_\_

Cross Product – \_\_\_\_\_

Congruent – \_\_\_\_\_

2. Find the value of x if  $\triangle ABC \cong \triangle EDF$



3. If  $\triangle CAT \cong \triangle DOG$  list all corresponding sides and angles.

4. List Characteristics of Similar Figures \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. Dilations always produce \_\_\_\_\_. To find the new coordinates/measurements of a dilated figure you \_\_\_\_\_ the scale factor by the \_\_\_\_\_.

6. Reduced figures have \_\_\_\_\_ scale factors.  
 Enlarged figures have \_\_\_\_\_ scale factors.  
 Congruent figures have \_\_\_\_\_ scale factors.

7. Dilate the following by their scale factors.

|            |               |       |
|------------|---------------|-------|
| A (2, 6)   | 300%          | _____ |
| B (4, 8)   | .75           | _____ |
| C (16, 12) | $\frac{1}{4}$ | _____ |

8. Chris wants to enlarge a 3 inch by 6 inch photograph that will fit into a frame that is 12 inches long. What is the width of the new photograph?

9. Corey casts a 10 ft long shadow. He is standing next to a statue that is 14 ft tall and casts a shadow that is 25 ft long. How tall is Corey?

10. Find the scale factors of the following original and new coordinates.

D (2, 6)      D' (10, 30)      \_\_\_\_\_

E (6, 18)      E' (2, 6)      \_\_\_\_\_

F (16, 20)      F' (12, 15)      \_\_\_\_\_

11. Two figures with a scale factor of  $\frac{1}{3}$  will have a perimeter scale factor of \_\_\_\_\_.

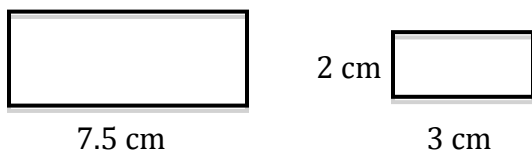
12. Two figures with a scale factor of 4:1 will have an area ratio of \_\_\_\_\_.

13. The sides of two regular hexagons have a ratio of 2:5. If the perimeter of the larger hexagon is 45 cm, what is the perimeter of the smaller hexagon?

14. If a rectangle that is 8 meters long and 5 meters wide is dilated with a scale factor of 2:1, what is the area of the new dilated rectangle?

15. A triangle has an area of a 4 square cm. and a similar triangle has an area of 36 square cm. What is the scale factor for these similar triangles?

16. Find the area of the larger similar rectangle.



17. Find the area of the smaller similar rectangle.

