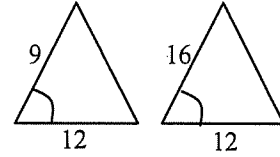
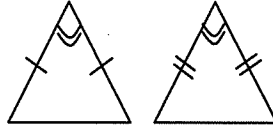
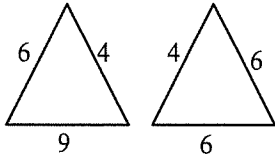
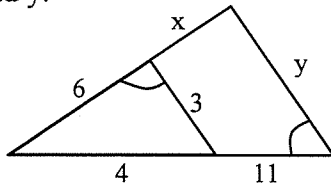


**Geometry Honors**  
**Final Exam Review chapters 7 and 8**

1. Does the following information indicate that the triangles are similar? Explain.



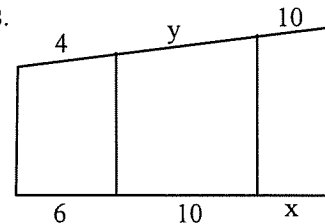
2. Find  $x$  and  $y$ .



3. State the ways of proving triangles are similar.

4. State the inequalities dealing with the angles and lengths in a triangle or in 2 triangles.

5. The vertical segments are parallel. Find the missing lengths.



6. If  $2x = 9y$ , then find the ratio of  $y$  to  $x$ .

7. If  $2x + 10 = 5y$ , find the ratio of  $(x + 5) : y$ .

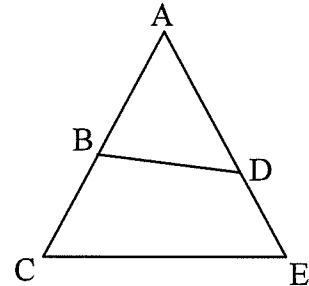
8. A 34cm segment is divided into a ratio of 2:3:5. What is the length of each segment?

9. Find x if  $(x+2) / 4 = (5x+4) / 12$

10. Find x if  $(x - 5) / 3 = 2 / x$

11.  $\frac{AB}{BC} = \frac{AD}{DE}$  Complete the table.

	AB	BC	AC	AD	DE	AE
a.	4	10				56
b.			34	21		51



12.  $ABCDE \sim VWXYZ$

$WX = 24$        $AB = 30$

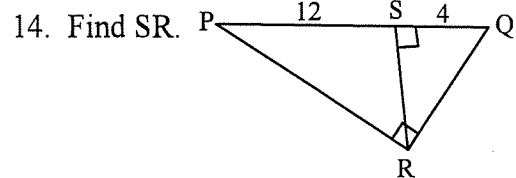
$VZ = 30$        $BC = 20$

a. The scale factor of VWXYZ to ABCDE is \_\_\_\_\_.

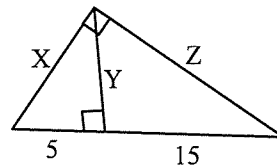
b.  $AE =$  \_\_\_\_\_

c.  $WV =$  \_\_\_\_\_

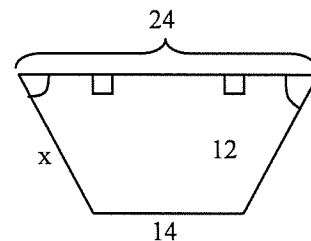
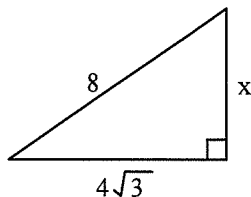
13. What is the geometric mean between 9 and 16?



15. Find the length of each leg and the altitude.



16. Find the missing length.



17. What are the relationships between the sides of a

a. 30-60-90 triangle?

b. 45-45-90 triangle?

18. If a right triangle has one leg that is half as long as the hypotenuse, then what is the length of the other leg? What are the measures of the acute angles?

19. What is the length of the longest diagonal of a 4 in. by 6 in. by 8 in. box?

20. Classify each triangle (by angles) as specifically as you can based on the 3 given side lengths.

a. 4, 5, 7

b. 6, 8, 10

c. 3, 4, 6

d. 2, 3, 4