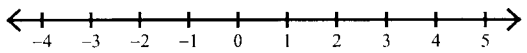
Algebra 1 - Mr. Cantlin - All work on looseleaf except graphs. Name_____

Q4 - Homework 2 - Worksheet 6-4 and 11-6

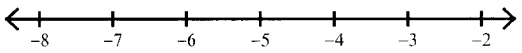
Date_____ Period____

Solve each compound inequality and graph its solution.

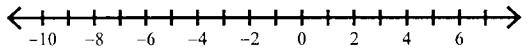
1) $r + 6 < 5$ or $-4r < -8$



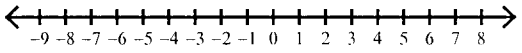
2) $-2 \le x + 4 < -1$



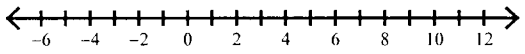
3) $5 - 5b \ge 40$ or $2b + 1 > 9$



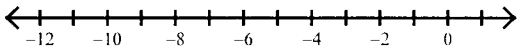
4) $8 + 3n \le -7$ or $10 - n < 7$



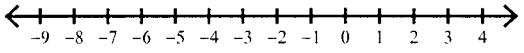
5) $7v - 2 < 61$ and $1 - 4v \le 13$



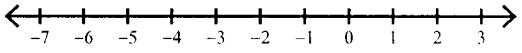
6) $-46 < 8 + 6n \le 2$



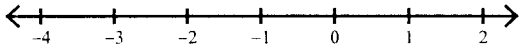
7) $6 - x \ge 10$ or $8x + 5 > 13$



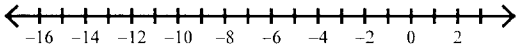
8) $6a - 9 \ge -15$ or $2a - 2 < -8$



9) $5k + 5 < 8 + 6k \le 4 + 2k$



10) $-5 + 2x < 9 + 3x$ and $-10x + 4 < 4 + x$



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NAME _____ DATE _____ PERIOD _____

11-6 Study Guide and Intervention (continued)

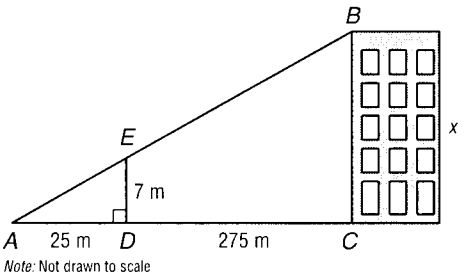
HW #2

Similar Triangles

Find Unknown Measures If some of the measurements are known, proportions can be used to find the measures of the other sides of similar triangles.

Example **INDIRECT MEASUREMENT**

$\triangle ABC \sim \triangle AED$ in the figure at the right. Find the height of the apartment building.



Note: Not drawn to scale

Let $BC = x$.

$$\frac{ED}{BC} = \frac{AD}{AC}$$

$$\frac{7}{x} = \frac{25}{300} \quad ED = 7,\ AD = 25,\ AC = 300$$

$25x = 2100$ Find the cross products.

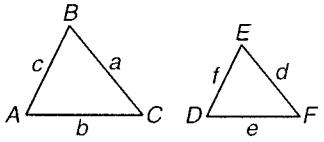
$x = 84$

The apartment building is 84 meters high.

STUDY THIS EXAMPLE FOR #18 AND #19.

Exercises

For each set of measures, find the measures of the missing sides if $\triangle ABC \sim \triangle DEF$.



11. $c = 15, d = 8, e = 6, f = 10$

12. $c = 20, a = 12, b = 8, f = 15$

13. $a = 8, d = 8, e = 6, f = 7$

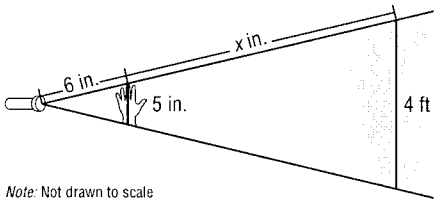
14. $a = 20, d = 10, e = 8, f = 10$

15. $c = 5, d = 10, e = 8, f = 8$

16. $a = 25, b = 20, c = 15, f = 12$

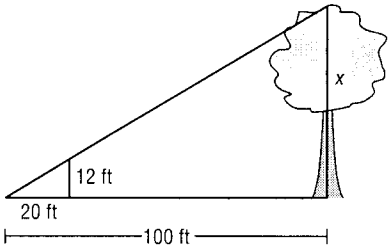
17. b = 8, $d = 8, e = 4, f = 10$

18. INDIRECT MEASUREMENT Bruce likes to amuse his brother by shining a flashlight on his hand and making a shadow on the wall. How far is it from the flashlight to the wall?



Note: Not drawn to scale

19. INDIRECT MEASUREMENT A forest ranger uses similar triangles to find the height of a tree. Find the height of the tree.



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