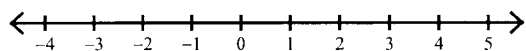


Q4 - Homework 2 - Worksheet 6-4 and 11-6

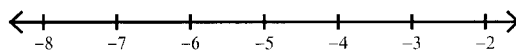
Date _____ Period _____

Solve each compound inequality and graph its solution.

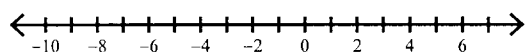
1) $r + 6 < 5$ or $-4r < -8$



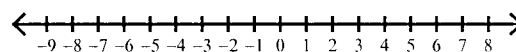
2) $-2 \leq x + 4 < -1$



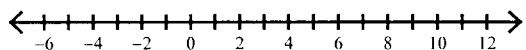
3) $5 - 5b \geq 40$ or $2b + 1 > 9$



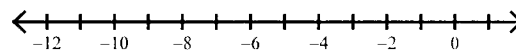
4) $8 + 3n \leq -7$ or $10 - n < 7$



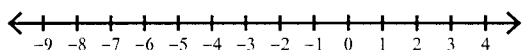
5) $7v - 2 < 61$ and $1 - 4v \leq 13$



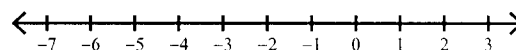
6) $-46 < 8 + 6n \leq 2$



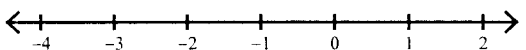
7) $6 - x \geq 10$ or $8x + 5 > 13$



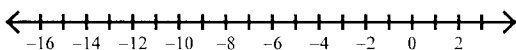
8) $6a - 9 \geq -15$ or $2a - 2 < -8$



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



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



HW2 Page 1 of 2

11-6 Study Guide and InterventionHW #2
(continued)**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.

Let $BC = x$.

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

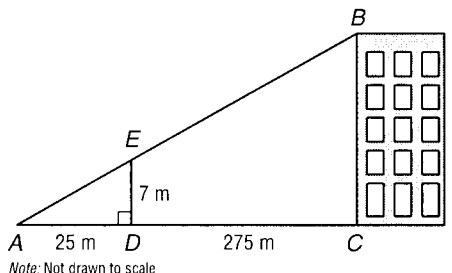
$$\frac{7}{x} = \frac{25}{300}$$

$$ED = 7, AD = 25, AC = 300$$

$$25x = 2100 \quad \text{Find the cross products.}$$

$$x = 84$$

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

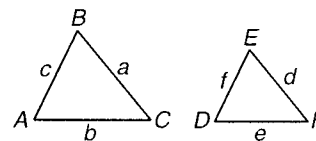
13. $a = 8, d = 8, e = 6, f = 7$

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

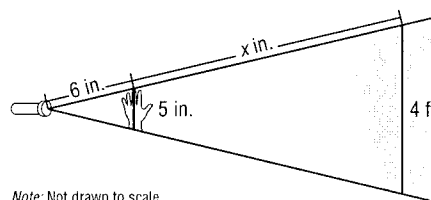
15. $c = 5, d = 10, e = 8, f = 8$

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

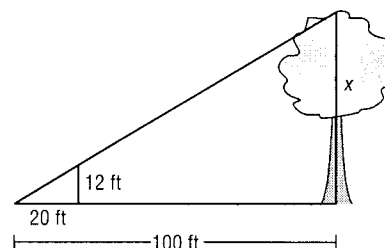
17. $b = 8, d = 8, e = 4, f = 10$



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?



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



HW2 PAGE 2 of 2