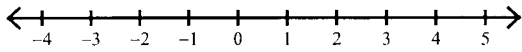


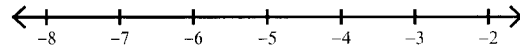
Q4 - Homework 2 - Worksheet 6-4 and 11-6

Solve each compound inequality and graph its solution.

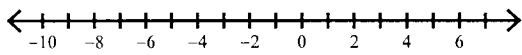
1)  $r + 6 < 5$  or  $-4r < -8$



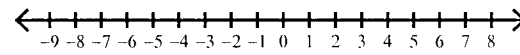
2)  $-2 \leq x + 4 < -1$



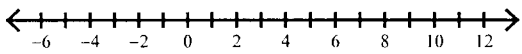
3)  $5 - 5b \geq 40$  or  $2b + 1 > 9$



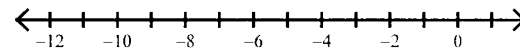
4)  $8 + 3n \leq -7$  or  $10 - n < 7$



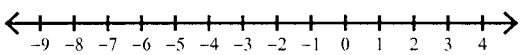
5)  $7v - 2 < 61$  and  $1 - 4v \leq 13$



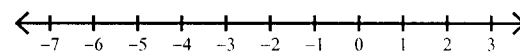
6)  $-46 < 8 + 6n \leq 2$



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



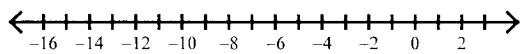
8)  $6a - 9 \geq -15$  or  $2a - 2 < -8$



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 Intervention

HW #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  $BC = x$ .

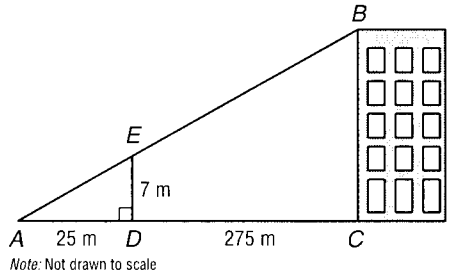
$$\frac{ED}{BC} = \frac{AD}{AC}$$

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

$25x = 2100$  Find the cross products.

$$x = 84$$

The apartment building is 84 meters high.

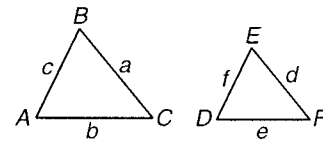


STUDY THIS EXAMPLE  
FOR #18 AND #19.

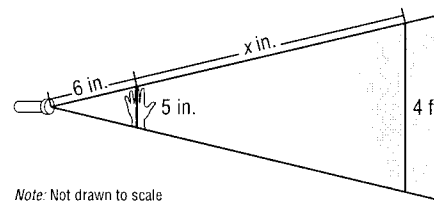
### Exercises

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

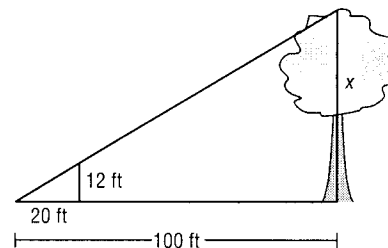
11.  $c = 15, d = 8, e = 6, f = 10$
12.  $c = 20, a = 12, b = 8, f = 15$
13.  $a = 8, d = 8, e = 6, f = 7$
14.  $a = 20, d = 10, e = 8, f = 10$
15.  $c = 5, d = 10, e = 8, f = 8$
16.  $a = 25, b = 20, c = 15, f = 12$
17.  $b = 8, d = 8, e = 4, f = 10$



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?



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)