

Name: _____

HW # 22

1. If 1 inch represents 50 miles on a map, then how many inches will represent 1800 miles?

$$\frac{1 \text{ in}}{50 \text{ mi}} = \frac{x}{1800}$$

$$50x = 1800$$

$$x = 36 \text{ in}$$

2. The length of a highway is 600 miles. If 1 inch represents 75 miles, what is the length of the highway on the map?

$$\frac{1 \text{ in}}{75 \text{ mi}} = \frac{x}{600}$$

$$75x = 600$$

$$x = 8 \text{ in}$$

3. A model of a skyscraper is made so that 1 inch represents 75 feet. What is height of the actual building if the height of the model is 1835 inches?

$$\frac{1 \text{ in}}{75 \text{ ft}} = \frac{1835}{x}$$

$$x = 137,625 \text{ ft}$$

4. Mariel and John are creating scale drawings of their classroom. Mariel uses the scale 2 inches represents 5 feet of the classroom. John uses the scale 1 inch represents 30 inches of the classroom. Based on this information, whose scale drawing will be larger? Justify your response.

$$\frac{2 \text{ in}}{5 \text{ ft}} \rightarrow \frac{2 \text{ in}}{60 \text{ in}}$$

$$\frac{1 \text{ in}}{30 \text{ in}} \times 2 \rightarrow \frac{2 \text{ in}}{60 \text{ in}}$$

They will have the same size scale drawing

5. Find the constant of proportionality in each example:

- a. 405 rotations in 15 minutes

$$27 \text{ rotation per min}$$

- b. \$72 for 12 servings

$$\$6 \text{ per serving}$$

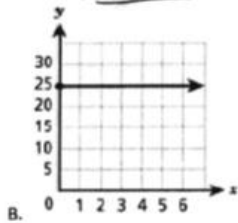
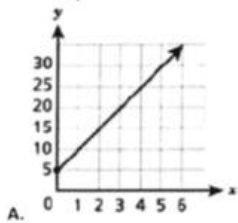
- c. (10,40)

$$4$$

- d. $y = 8x$

$$8$$

6. Which representation below shows a proportional relationship between x and y?



C.

x	y
2	8
4	16
8	24
12	32

D.

x	y
2	3
4	6
8	12
12	18

7. Which ordered pair below could be on the same line as point N if the line would be proportional?

A. ~~(6,0)~~

B. (2,3)

C. ~~(15,0)~~

D. (7.5, 5)

N (18, 12)
 $cp = 0.\bar{6}$

$cp = 0.\bar{6}$

