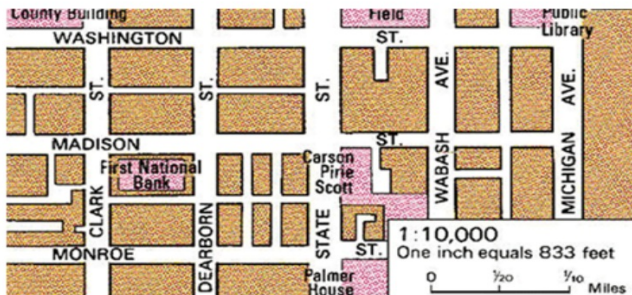


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**January 11, 2012**

White WS3 }  
Melon Review } due Thursday

## 1/11 - Scale Model and Map Problems using Proportion



$$5280 \text{ ft} = 1 \text{ mile}$$
$$528' = \frac{1}{10} \text{ mile}$$

The scale is: a way of telling how far something is  
the way to transfer distance on a map to real life

Find the distance between Greenwood and Madison on a map with a scale of  $2 \text{ cm} : 10 \text{ km}$  if they are actually  $40 \text{ km}$  apart.

$$\frac{x}{40 \text{ km}} = \frac{2 \text{ cm}}{10 \text{ km}}$$

$$\frac{10x}{10} = \frac{80}{10}$$

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

Victoria and Johnstown are  $12 \text{ mi}$  from each other. How far apart would the cities be on a map that has a scale of  $2 \text{ in} : 3 \text{ mi}$ ?

$$\frac{2 \text{ in} \cdot 4}{3 \text{ mi} \cdot 4} = \frac{x}{12 \text{ mi}}$$

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



A diecast 1:10 scale Doepke Toys Jaguar XK120 from 1955. One of two car models the company made, this model is 17.5 in (440 mm) long. (in The Children's Museum of Indianapolis)

How big is the original?

$$\begin{array}{l} \text{model} \\ \frac{1 \text{ in}}{10 \text{ in}} = \frac{17.5 \text{ in}}{x} \\ \text{real} \end{array}$$

$$x = 10(17.5)$$

$$x = 175 \text{ in}$$

$$\left(14\frac{2}{3} \text{ ft}\right)$$

A model train is 30 in tall. If it was built with a scale of 5 in : 3 ft then how tall is the real train?

$$\frac{5 \text{ in} \cdot 6}{3 \text{ ft} \cdot 6} = \frac{30 \text{ in}}{x}$$

$$18 \text{ ft} = x$$

A model giraffe is 16 in tall. If it was built with a scale of 4 in : 3 ft then how tall is the real giraffe?

$$\frac{4 \text{ in} \cdot 4}{3 \text{ ft} \cdot 4} = \frac{16 \text{ in}}{x}$$

$$x = 12 \text{ ft}$$

# HOMework

Pink WORKSHEET WS4

DUE Thursday

