Scale Drawings:

Used to represent objects that are too Big or too Small to draw

* Use Proportions to Solve *

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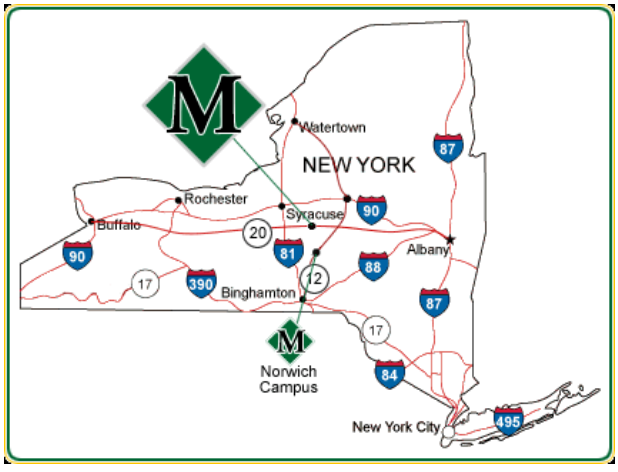

$$\frac{1\text{cm}}{32\text{mi}} = \frac{9\text{cm}}{x}$$

$x = 288$ miles

Buffalo and Albany are 9cm apart on the given map. What is the actual distance of the two cities if 1cm = 32 miles?

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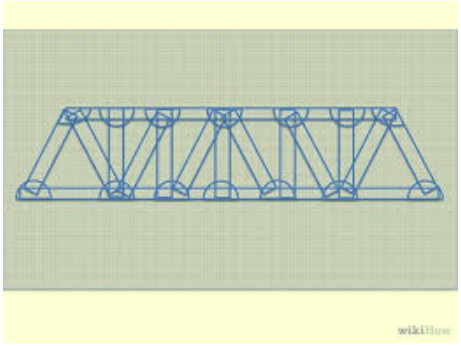

$\frac{1/4 \text{ in}}{3 \text{ yds}} = \frac{X}{50 \text{ yds}}$

$\frac{3x}{3} = \frac{12.5}{3}$

$X = 4\ 1/6 \text{ inches}$

A model bridge uses a scale of 1/4 inch = 3 yards. The actual bridge is 50 yards long. Find the length of the model.

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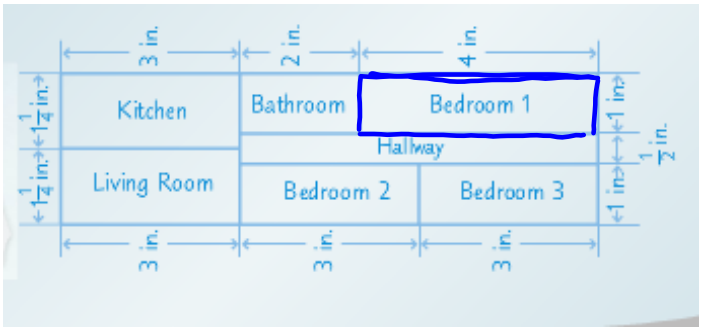

$A = lw$

$4 \times 6 = 24 \text{ ft} \quad (l)$

$1 \times 6 = 6 \text{ ft} \quad (w)$

$A = 24 \times 6 = 144 \text{ ft}^2$

The floor plan for the home shown has a scale of 1/2 inch represents 3 feet of the actual home. What is the actual area of bedroom #1?

1 inch = 6 ft.

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Your Turn...

1. On a map, the distance from Akron to Cleveland measures 2 centimeters. What is the actual distance if the scale of the map shows that 1 centimeter is equal to 30 kilometers? (Example 1)

$\frac{1}{30} = \frac{2}{C}$ $C1=60$

$C=60Km$

2. An engineer makes a model of a bridge using a scale of 1 inch = 3 yards. The length of the actual bridge is 50 yards. What is the length of the model? (Example 2)

$16\frac{2}{3}in$

$\frac{1in.}{3yrd} = \frac{x}{50}$ $\frac{3x}{3}=\frac{50}{3}$

$x=16.\overline{6}in$

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