

Chapter 8 Ratios and Proportions

8.6 Scale Drawings and Models

Pages 430-436

NOTES (8.6) Scale Drawings & Models

A **scale drawing** is a diagram of an object where the dimensions of the actual object are proportional to the dimensions of the drawing.

The **scale** provides the relationship between the actual object and the scale drawing dimensions.

A **scale model** is a model of an object using proportional dimensions.

Guided Practice pp 432-433

Do # 4-6 all like this

$$\frac{1 \text{ in}}{15 \text{ ft}} = \frac{2 \text{ in}}{x} \quad \text{B. } 30 \text{ ft}$$

$$x = 2 \cdot 15$$

$$x = 30$$

Do # 8 & 10 like this

$$7) \frac{1 \text{ cm}}{25 \text{ mi}} = \frac{3 \text{ cm}}{x}$$

$$x = 3 \cdot 27$$

$$x = 75 \text{ mi}$$

Do # 16-22 even like this

$$19) \frac{6 \text{ in}}{14 \text{ yd}}$$

step 1 = convert to like units

$$\frac{6 \text{ in}}{504 \text{ in}}$$

step 2 = reduce

$$\frac{6 \div 2}{504 \div 2} = \frac{3 \div 3}{252 \div 3} = \frac{1}{84}$$

$$23) \frac{9 \text{ in}}{20 \text{ ft}} = \frac{3}{80} \quad \begin{array}{l} 12 \text{ in per ft} \\ \frac{20}{240} \end{array}$$

$$\frac{9 \text{ in}}{240 \text{ in}} \div 3$$

$$\frac{3}{80}$$

36 in per yd

$$\begin{array}{r} x14 \text{ yds} \\ 144 \\ \hline 360 \\ 504 \end{array}$$

$$144$$

$$360$$

$$504$$

$$\begin{array}{r} 84 \\ 3 \overline{)252} \\ \underline{24} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

$$\begin{array}{r} 80 \\ 3 \overline{)240} \\ \underline{24} \\ 00 \\ \underline{0} \\ 0 \end{array}$$