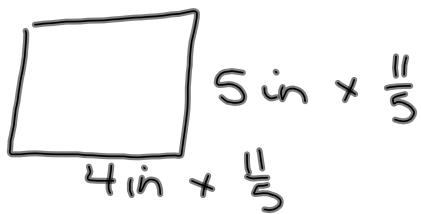


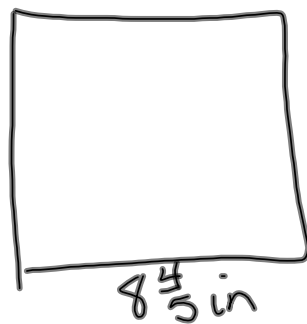
$$\frac{10 \text{ in}}{l} = \frac{8 \text{ in}}{4 \text{ mm}}$$

increase



$$8\frac{4}{5} > 8\frac{1}{2}$$

No

Scale Factor $\boxed{5:11}$ 

$$\boxed{\frac{5}{11}}$$

$$\boxed{\frac{11}{5}}$$

4-6 Scale factor

Scale - it is proportional

$$\frac{1 \text{ cm}}{10 \text{ m}} = \frac{3.5 \text{ cm}}{? \text{ 35m}}$$

(Note: Red arrows point from the '35' in the denominator to the '3.5' in the numerator, and from the '35' in the numerator to the '35' in the denominator. The '35m' in the denominator is circled.)

Scale factor

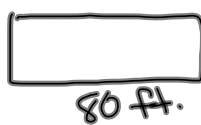
$$\frac{1 \text{ cm}}{10 \text{ m}} = \frac{1 \text{ cm}}{1000 \text{ cm}}$$

(Note: A box is drawn around the fraction $\frac{1 \text{ cm}}{1000 \text{ cm}}$.)

units are same

$1 \text{ m} = 100 \text{ cm}$
 $10 \text{ m} = 1000 \text{ cm}$

SF: $\frac{1}{1000}$

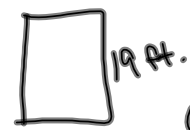


$$\frac{6 \text{ in}}{80 \text{ ft.}} = \frac{1 \text{ in}}{13.\bar{3} \text{ ft.}}$$

$13 \frac{1}{3} \text{ ft.}$

Scale:

$$1 \text{ in} = 13 \frac{1}{3} \text{ ft.}$$



$4\frac{3}{4}$ in

$$\frac{12 \text{ in}}{44 \text{ ft.}} = \frac{1 \text{ in}}{3.\bar{3} \text{ ft.}}$$

$$\frac{11 \text{ in}}{44 \text{ ft.}} = \frac{1 \text{ in}}{4 \text{ ft.}}$$

Sf.

$$\frac{1 \text{ in}}{4 \text{ ft.}} = \frac{4.75}{19 \text{ ft.}}$$

$$\overline{\hspace{2cm}} \\ 1 \text{ in} = 120 \text{ mi.}$$

$$3.) \quad \frac{1 \text{ in}}{120 \text{ mi.}} = \frac{6 \text{ in}}{\textcircled{720 \text{ mi.}}}$$

$$4.) \quad 2\frac{3}{4} \text{ in.} \\ \frac{1 \text{ in}}{120 \text{ mi.}} = \frac{2.75 \text{ in}}{\textcircled{330 \text{ mi.}}}$$

$$5.) \quad \begin{array}{l} \text{model} \\ 9.25 \text{ in.} \\ \hline \text{real } 555 \text{ ft.} \end{array} = \boxed{\begin{array}{l} \text{model} \\ \frac{1 \text{ in.}}{60 \text{ ft.}} \\ \text{real} \end{array}} \quad \begin{array}{l} \text{Scale} \\ \text{units can be} \\ \text{different} \end{array}$$

6.) Scale factor

$$\frac{1 \text{ in}}{60 \text{ ft.}} \quad \begin{array}{l} (60 \times 12) \end{array} = \boxed{\begin{array}{l} \frac{1 \text{ in}}{720 \text{ in}} \\ \text{Scale} \\ \text{Factor} \end{array}} \quad \begin{array}{l} \text{units have to be the} \\ \text{same.} \end{array}$$

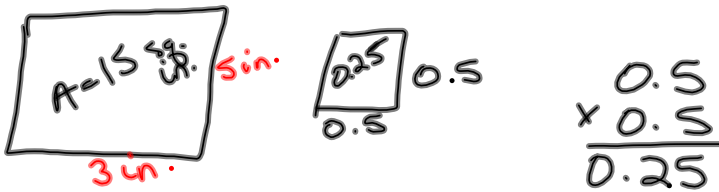
$$8.) \quad \frac{0.5 \text{ in}}{3 \text{ ft.}} = \frac{3 \text{ in}}{18 \text{ ft.}}$$

$$\frac{0.5 \text{ in}}{3 \text{ ft}} \quad \frac{1 \text{ in.}}{6 \text{ ft.}} = \boxed{\frac{1}{72} \text{ Scale Factor}}$$

6×12

$$\frac{0.5 \text{ in}}{3 \text{ ft}} = \frac{2.1 \text{ in}}{}$$

14.)



$A = 15 \text{ sq. in.}$
 $3 \text{ in.} \times 5 \text{ in.}$

$0.5 \times 0.5 = 0.25$

$$\text{SF} = \frac{1}{72}$$