Example 3: On a blueprint, 1 inch is equal to 1 foot.

12 inches = 1 foot

The blueprint?

b) What is the actual length of a room that measures 3 \( \times \) 12 inches on

a) Write this as a scale statement in the form of x:  

\[
\frac{x}{\text{inches on blueprint}} = \frac{\text{inches in actual length}}{\text{inches on blueprint}}
\]

\[
x = \frac{12 \text{ inches}}{1 \text{ foot}} \times 3 \text{ inches}
\]

\[
x = 18 \text{ inches}
\]

\[
\frac{x}{\text{inches on blueprint}} = \frac{3}{1} = \frac{3.25}{0.25}
\]

or

\[
\frac{x}{\text{inches on blueprint}} = \frac{0.25}{12}
\]

8 : 1

\[
\frac{1}{x} \times 12 = \frac{1}{8} \times 12
\]

\[
\frac{1}{8} \text{ in} : 12 \text{ in}
\]

\[
\frac{1}{8} \text{ in} : 1 \text{ ft}
\]

180 in = 15 ft

12 in = 1 ft