

Factor label Method.

X

=

the number you want to convert

always multiply

a conversion factor.

- the top & bottom are =
- top has units you want
- bottom has units you don't want

Ex. Inches to feet

$$\frac{60 \cancel{\text{in}}}{1} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = \frac{(60 \cancel{\text{in}})(1 \text{ ft})}{(1)(12) \cancel{\text{in}}} = \frac{60 \text{ ft}}{12} = 5 \text{ ft}$$

Let's Try:

180 in to ft

$$180 \cancel{\text{in}} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = 15 \text{ ft}$$

More practice

a) 98 in to ft

$$98 \cancel{\text{in}} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = 8.1\bar{6} \text{ ft}$$

b) 56 in to ft

$$56 \cancel{\text{in}} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = 4.\bar{6} \text{ ft}$$

c) 30 in to ft

$$30 \cancel{\text{in}} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = 2.5 \text{ ft}$$

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$$\frac{30}{12} = 2\frac{6}{12} = 2\frac{1}{2} \text{ ft}$$

What if I wanted to know how many feet & inches?

12
24
36
48 (4 ft)
60 (5 ft)
72
84
96
108
120
132
144

52 in

$$52 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} = \frac{52 \text{ ft}}{12} = 4\frac{4}{12} \text{ ft}$$

4 ft 4 in

~~66 in~~
60 (5 ft)
6 in

5 ft 6 $\frac{3}{4}$ in

188 $\frac{5}{16}$ in

$$\frac{180}{16} = 11\frac{5}{16}$$

11 ft 8 $\frac{5}{16}$ in

Now let's try ft to in.

$$5 \cancel{\text{ft}} \times \frac{12 \text{ in}}{1 \cancel{\text{ft}}} = 60 \text{ in}$$

$$2\frac{1}{2} \cancel{\text{ft}} \times \frac{12 \text{ in}}{1 \cancel{\text{ft}}} = 30 \text{ in}$$

$$8 \cancel{\text{ft}} \times \frac{12 \text{ in}}{1 \cancel{\text{ft}}} = 96 \text{ in}$$

LET'S TRY SOME MORE!

Convert each of the following

a) 78 in = _____ ft _____ in

b) 15 ft = _____ in

c) 2.5 mi = _____ in

d) 250 " = _____ ft _____ in

Try these!

e) 500 yds = _____ ft

f) 7' 2" = _____ yd _____ ft _____ in

g) 1 000 000 in = _____ mi

Homework

Finish these 5

On worksheet

convert to inches

convert to ft + in

Attachments

Worksheet - Converting Imperial Lengths.docx

Assignment - Measuring in an Imperial System.pdf

Worksheet2_ Inches to feet.pdf