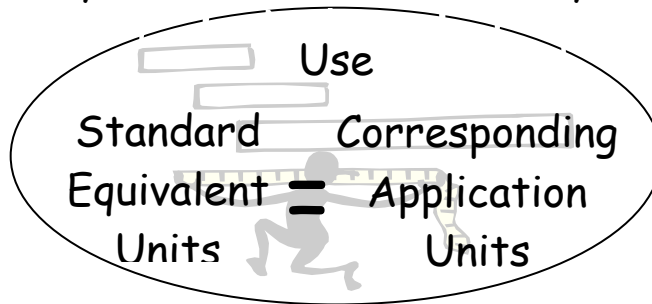


UNIT CONVERSION: How do you convert from one unit to another with in one system of measurement by using a proportion?



Length Example

Standard Equivalent Units
1 yard = 3 feet = 36 inches

Application
48 inches = ? yards

$$\frac{1 \text{ yard}}{36 \text{ inches}} = \frac{? \text{ yards}}{48 \text{ inches}}$$

$$\frac{1}{36} = \frac{x}{48}$$

$$36x = 48$$

$$x = \frac{48}{36}$$

$$x = \frac{4}{3} = 1\frac{1}{3} \text{ yards}$$

Time Example

Standard Equivalent Units
1 hour = 60 minutes

Application
5.2 hours = ? minutes

$$\frac{1 \text{ hour}}{60 \text{ minutes}} = \frac{5.2 \text{ hours}}{? \text{ minutes}}$$

$$\frac{1}{60} = \frac{4.2}{x}$$

$$x = 252 \text{ minutes}$$

Weight Example

Standard Equivalent Units
1 pound = 16 ounces

Application
3.5 pounds = ? ounces

$$\frac{1 \text{ pound}}{16 \text{ ounces}} = \frac{3.5 \text{ pounds}}{? \text{ ounces}}$$

$$\frac{1}{16} = \frac{3.5}{x}$$

$$x = 54 \text{ ounces}$$

Volume Example

Standard Equivalent Units
1 gallon = 4 quarts = 8 pints

Application
4.5 quarts = ? pints

$$\frac{4 \text{ quarts}}{8 \text{ pints}} = \frac{4.5 \text{ quarts}}{? \text{ pints}}$$

$$\frac{4}{8} = \frac{4.5}{x}$$

$$4x = 36$$

$$x = 9 \text{ pints}$$

You try!

Standard Equivalent Units	Standard
Equivalent Units	Equivalent Units
1 meter = 100 centimeters	1 kilogram = 1000 grams

Application	Application
4.8 meters = ? centimeters	6700 grams = ? kilograms