

## Convert It

Here is a listing of metric (SI) units and their English equivalents:

<b>FORCE</b>	1 lb = 4.45 N	1 oz (force) = 0.2780 N	
<b>VOLUME</b>	1 ft <sup>3</sup> = 0.02832 m <sup>3</sup>	1 in <sup>3</sup> = 16.39 cm <sup>3</sup>	1 cm <sup>3</sup> = 1 mL
	1 gal = 3.785 L	1 qt = 0.9464 L	1 oz (vol) = 29.57 mL
<b>LENGTH</b>	1 in = 25.4 mm	1 ft = 0.3048 m	1 mi = 5280 ft =
	1 yd = 3 ft		1.609 km
<b>TIME</b>	60 s = 1 min	60 min = 1 hr	3600 s = 1 hr

ITEM	ENGLISH UNITS	CONVERSION FACTOR	METRIC UNITS
Length of whiteboard	yd	←	← m
Height of your desk chair	ft	⇒	⇒ cm
Length of the calculator	in	⇒	⇒ mm
Width of whiteboard ledge	in	←	← mm
Diameter of wheel	in	⇒	⇒ mm
Diameter of axle	in	←	← mm
Distance car can travel	ft	⇒	⇒ m
Velocity of car	ft/s	←	← m/s

The unit of one Newton (1 N) is composed of mass, distance, and time units:  $\frac{\text{kg}\cdot\text{m}}{\text{s}^2}$ .

If a pound is composed of  $\frac{\text{slug}\cdot\text{ft}}{\text{s}^2}$ , how are slugs related to kilograms?

The unit of pressure in the metric system is a Pascal, for which  $(1 \text{ Pa} = 1 \frac{\text{N}}{\text{m}^2})$ .

What are the units of a Pascal in distance, mass, and time units?

What is the conversion factor for Pascals to psi ( $\frac{\text{pound}}{\text{in}^2}$ )?