

CONVERSION TABLE FOR ENGINEERS

Weight/Mass

Table 6. Weight/Mass Conversion Multipliers.

Existing Unit	Desired Unit				
	Grains (gr)	Grams (g)	Kilograms (kg)	Ounces (oz)	Pounds (lb)
Grains (gr)	—	0.0648	0.000065	0.00229	0.000143
Grams (g)	15.432	—	1 000	0.0353	0.00221
Kilograms (kg)	15 432	0.001	—	35.274	2.2046
Ounces (oz) av	437.5	28.35	0.02835	—	0.0625
Pounds (lb)	7 000	453.6	0.4536	16	—

Example:

10 pounds x 0.4536 = 4.54 kilograms

Length

Table 7. Length Conversion Multipliers.

Existing Unit	Desired Unit					
	Inches (in.)	Feet (ft)	Meters (m)	Millimeters (mm)	Miles (mi)	Kilometers (km)
Inches (in.)	—	0.083	0.0254	25.4	0.0000158	0.0000254
Feet (ft)	12	—	0.3048	304.80	0.0001894	0.0003048
Meters (m)	39.37	3.281	—	1 000	0.0006214	0.001
Millimeters (mm)	0.03937	0.003281	0.001	—	0.0000006	0.00001
Miles (mi)	63 360	5 280	1 609.344	1 609 344	—	1.6093
Kilometers (km)	39 370	3 281	1 000	1 000 000	0.6214	—
Centimeters (cm) x 10 = millimeters (mm)						
Millimeters (mm) x 0.1 = centimeters (cm)						

Example:

17 feet x 0.3048 = 5.18 meters

Area

Table 8. Area Conversion Multipliers.

Existing Unit	Desired Unit				
	Sq feet (ft ²)	Sq inches (in ²)	Sq millimeters (mm ²)	Sq meters (m ²)	Sq yards (yd ²)
Sq feet (ft ²)	—	144	92 903	0.0929	0.111
Sq inches (in ²)	0.00694	—	645.2	0.00065	0.00077
Sq millimeters (mm ²)	0.0000108	0.00155	—	0.000001	0.0000012
Sq meters (m ²)	10.764	1 550.0	1 000 000	—	1.196
Sq yards (yd ²)	9.0	1 296	836 127	0.8361	—
Sq miles x 2.590 = Sq kilometers					
Sq kilometers x 0.3861 = Sq miles					

Example: 30 square feet x 0.0929 = 2.79 square meters