

Convert 2250 millimeters to meters.

Convert a length of 24 feet to meters.

Convert a distance of 5 km into miles.

Convert  $4.45 \times 10^6$  square millimeters to square meters.

Convert a volume of 14 liters to cubic meters.

Convert a volume of 75 gallons to cubic feet.

A car is moving at 88 mph. What is its speed when expressed in ft/s?

The fastest train in Italy is the Frecciarossa having a top speed of 360 km/h.

a) Express this speed in meters per second.

b) Express this speed in mph.



A car travelling at 60 mph has a kinetic energy of 190,000 ft-lbs.

Compute the weight of the car in pounds.

What is the weight of a gallon of water if it has a mass of 0.26 slug?

An Olympic weight plate has a mass of 20 kg. What is its weight in pounds?

Using a bathroom scale a man measures his weight to be 172 lb (pounds-force).

- a) What is his mass in lbm (pounds-mass)?
- b) What is his mass in slugs?
- c) What is his mass in kg?
- d) What is his weight in N?

The service manual for your car specifies that lug nuts should be tightened to a torque of 100 ft-lbs. What is this torque in units of N-m?

A lockring for a bicycle cassette should be tightened to a torque of 40 N-m.  
What is this torque in units of in-lbs?