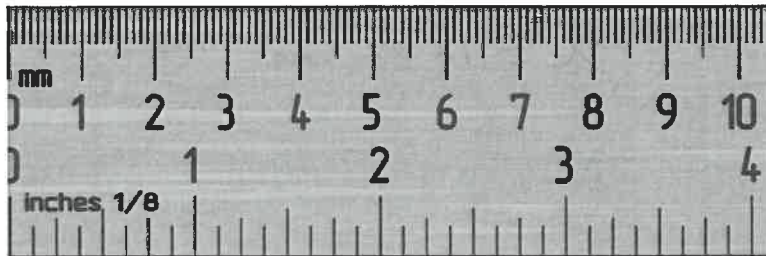


2.5 Converting between Systems

When we convert metric to imperial, there are specific conversions that are more commonly used.



Conversion Factors Between SI and Imperial Units	
SI to Imperial	Imperial to SI
1 mm = 0.0394 in	1 in = 25.4 mm
1 cm = 0.3937 in	1 in = 2.54 cm
1 m = 3.2808 ft	1 ft = 0.3048 m
1 m = 1.0936 yd	1 yd = 0.9144 m
1 km = 0.6214 mi	1 mi = 1.6093 km

To convert between systems, use a proportion.

1. 7 yards to metres

$$\frac{0.9144 \text{ m}}{1 \text{ yd}} = \frac{x}{7 \text{ yd}} \quad x = 6.40 \text{ m}$$

Show you know

2. 5 cm to inches

$$\frac{0.3937 \text{ in}}{1 \text{ cm}} = \frac{x}{5 \text{ cm}} \quad x = 1.97 \text{ in}$$

3. 16 m to feet

$$\frac{3.2808 \text{ ft}}{1 \text{ m}} = \frac{x}{16 \text{ m}} \quad x = 52.49 \text{ ft}$$

2 step conversion

5" to metres

$$\frac{2.54 \text{ cm}}{1 \text{ in}} = \frac{x}{5 \text{ in}} \quad x = 12.7 \text{ cm}$$

$$\underline{12.7 \text{ cm}} = 0.127 \text{ m}$$