

Need to Know: $1 \text{ cm}^3 = 1 \text{ mL}$

METRIC

ENGLISH

Length (Base unit = m)

1000 m = 1 km

BASE UNIT

1 m = 10 dm

1 m = 100 cm

1 m = 1000 mm

1 m = $10^6 \mu\text{m}$

1 m = 10^9 nm

BRIDGE

1 in = 2.54 cm

Length

12 in = 1 foot

3 ft = 1 yard

1760 yards = 1 mile

Volume (Base unit = L)

1000 L = 1 kL

BASE UNIT

1 L = 10 dL

1 L = 100 cL

1 L = 1000 mL

1 L = $10^6 \mu\text{L}$

1 L = 10^9 nL

BRIDGE

1 quart =
946.353 mL

Volume

1 cup = 8 oz

2 cups = 1 pint

2 pints = 1 quart

4 quarts = 1 gallon

Mass (Base unit = g)

1000 g = 1 kg

BASE UNIT

1 g = 10 dg

1 g = 100 cg

1 g = 1000 mg

1 g = $10^6 \mu\text{g}$

1 g = 10^9 ng

BRIDGE

1 lb =
453.592 g

Mass

Pounds (lb) = 16 oz

Example: How many decimeters are in 1.3 miles?

1. Start with given (1.3 miles)
2. Follow your units to get to the bridge (1 in = 2.54 cm), then the answer

So I need to get from miles to inches to use the bridge. Then from cm to mm in metric system.

$$1.3 \text{ miles} \times \frac{1760 \text{ yards}}{1 \text{ mile}} \times \frac{3 \text{ ft}}{1 \text{ yard}} \times \frac{12 \text{ inches}}{1 \text{ ft}} \times \frac{2.54 \text{ cm}}{1 \text{ in}} \times \frac{1 \text{ m}}{100 \text{ cm}} \times \frac{10 \text{ dm}}{1 \text{ m}} = 21000 \text{ dm}$$