

Unit Conversions Worksheet

- 1) How many inches are there in 45.6 cm? (There are 2.54 cm in 1 inch)
- 2) How many centimeters are there in 1.23×10^{-6} kilometers?
- 3) How many hours are there in 34.5 years?
- 4) How many inches are there in 355 millimeters?
- 5) How many milliliters are in a cubic meter? (There are 1,000 L in 1 m^3)
- 6) How many miles are there in 3.44×10^8 inches? There are 0.61 miles in 1 km).

$$1) 45.6 \text{ cm} \times \frac{1 \text{ inch}}{2.54 \text{ cm}} = 18.0 \text{ inch}$$

$$2) 1.23 \times 10^{-6} \text{ km} \times \frac{1000 \text{ m}}{1 \text{ km}} \times \frac{100 \text{ cm}}{1 \text{ m}} \\ = 0.123 \text{ cm}$$

$$3) 34.5 \text{ yr} \times \frac{365 \text{ day}}{1 \text{ yr}} \times \frac{24 \text{ hr}}{1 \text{ day}} \\ = 3.02 \times 10^5 \text{ hr}$$

$$4) 355 \text{ mm} \times \frac{100 \text{ cm}}{1000 \text{ mm}} \times \frac{1 \text{ inch}}{2.54 \text{ cm}} \\ = 14.0 \text{ inch}$$

$$5) \quad 1 \text{ m}^3 \times \frac{1000 \text{ L}}{1 \text{ m}^3} \times \frac{1000 \text{ mL}}{1 \text{ L}} =$$
$$1.0 \times 10^6 \text{ mL}$$

$$6) \quad 3.44 \times 10^8 \text{ inch} \times \frac{2.54 \text{ cm}}{1 \text{ inch}} \times$$
$$\frac{1 \text{ m}}{100 \text{ cm}} \times \frac{1 \text{ km}}{1000 \text{ m}} \times \frac{0.61 \text{ Miles}}{1 \text{ km}}$$
$$= 5.33 \times 10^3 \text{ Miles}$$

