

Practicing Unit Conversions

For each question below, be sure to show your work and calculations.

1. Mass Conversions

- a. If someone weighs 200 pounds, what is their weight in kg?

$$\frac{\text{kg}}{\text{lb}} = \frac{\text{kg}}{\text{lb}} \Rightarrow \frac{0.454}{1} = \frac{x}{200}$$

$$x = 200 \times 0.454$$

$$x = 90.8 \text{ kg}$$

- b. If someone weighs 75 kg, what is their weight in pounds?

$$\frac{\text{lb}}{\text{kg}} = \frac{\text{lb}}{\text{kg}} \Rightarrow \frac{x}{75} = \frac{1}{0.454}$$

$$x = \frac{75}{0.454}$$

$$x = 165 \text{ lbs}$$

$$x = 165 \text{ lbs}$$

2. Distance Conversions

- a. The distance from Gravenhurst to Toronto is 200 km. How many miles is the drive?

$$\frac{\text{miles}}{\text{km}} = \frac{\text{miles}}{\text{km}} \Rightarrow \frac{x}{200} = \frac{1}{1.6}$$

$$x = \frac{200}{1.6}$$

$$x = 125 \text{ miles}$$

- b. Your gym teacher says you are doing a 5 mile run today, how many metres are you running?

$$\frac{\text{km}}{\text{miles}} = \frac{\text{km}}{\text{miles}} \Rightarrow \frac{x}{5} = \frac{1.6}{1}$$

$$x = 5 \times 1.6$$

$$x = 8 \text{ km}$$

$$\therefore \text{it is } 8,000 \text{ m } (8 \text{ km} \times 1000)$$

go to km first

3. Volume Conversions

a. Once upon a time milk was sold in gallons. If you went through a half gallon jug of milk, how many litres of milk did you consume?

b. These days you can buy milk in bags totalling 4 L. How many gallons of milk is this?

4. Height Conversions

a. I am 5'11" (5 feet, 11 inches) tall. What is my height in cm?

b. Andrew Wiggins is 2.03 m tall. What is his height in feet and inches?