

## Conversions 3

Name: \_\_\_\_\_

Part 1: Convert the following values to the desired units. Show work.

1)  $1.6 \text{ km} = \underline{\hspace{2cm}}$  in

6)  $130 \text{ cm}^2 = \underline{\hspace{2cm}} \text{ in}^2$

2)  $46 \text{ mi} = \underline{\hspace{2cm}} \text{ mm}$

7)  $0.963 \text{ L} = \underline{\hspace{2cm}} \mu\text{L}$

3)  $840.1 \text{ ng} = \underline{\hspace{2cm}} \text{ lb}$

8)  $42 \text{ dL} = \underline{\hspace{2cm}} \text{ gal}$

4)  $956,000 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ L}$

9)  $81 \text{ ks} = \underline{\hspace{2cm}} \text{ hours}$

5)  $304 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ in}^3$

10)  $32 \text{ hL} = \underline{\hspace{2cm}} \text{ m}^3$

Part 2: In the following density situations, calculate the missing value:

1) mass = 23 g, volume = 75 mL

4) mass = 15.7 g, density = 0.71 g/cm<sup>3</sup>

2) volume = 45.6 in<sup>3</sup>, mass = 16.5 oz

5) 65 lb/ft<sup>3</sup>, 860 lb

3) density = 45 g/L, volume = 560 mL

6) 19.6 kg/L, 397 mL

Part 3: Convert the following. Show work, and make sure you have the right units:

1)  $34 \text{ g/cm}^3 = \underline{\hspace{2cm}} \text{ kg/L}$

$$2) 42 \text{ m/s} = \underline{\hspace{2cm}} \text{ mi/hr}$$

$$3) 9.45 \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$$

$$4) 1,004,000 \text{ kg/m}^3 = \underline{\hspace{2cm}} \text{ lb/in}^3$$

$$5) 0.0004 \text{ L} = \underline{\hspace{2cm}} \text{ mm}^3$$

$$6) 9.0145 \text{ lb/in}^2 = \underline{\hspace{2cm}} \text{ g/cm}^2$$

$$7) 300,000 \text{ km/s} = \underline{\hspace{2cm}} \text{ mi/hr}$$

$$8) 0.45 \text{ g/ml} = \underline{\hspace{2cm}} \text{ kg/m}^3$$

$$9) 56 \text{ yd}^2 = \underline{\hspace{2cm}} \text{ km}^2$$

$$10) 0.0064 \text{ in/hr} = \underline{\hspace{2cm}} \text{ nm/s}$$