

$$\frac{1.000 \text{ g}}{\text{mL}}$$

$$1.000 \text{ g} = 1 \text{ mL}$$

$$\frac{55 \text{ mile}}{1 \text{ hr}}$$

$$55 \text{ miles} = 1 \text{ hr}$$

2.

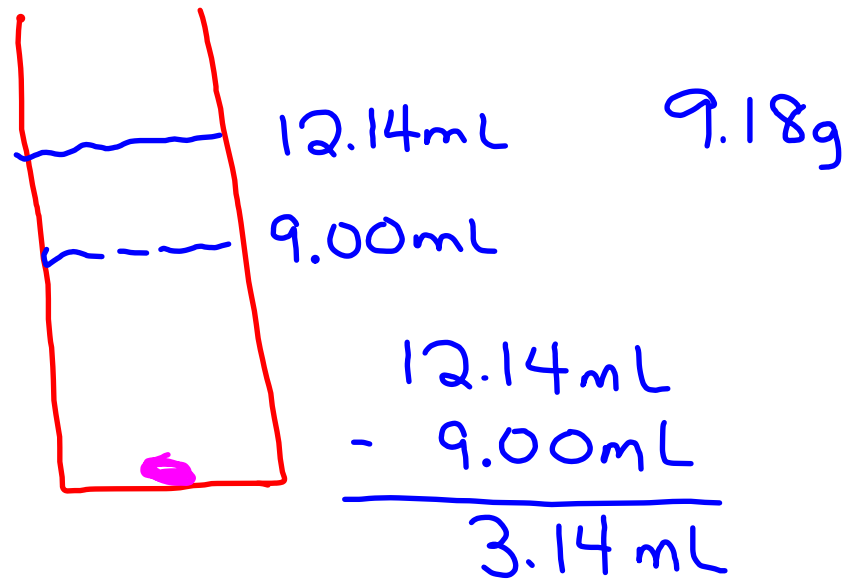
21.5 mL

21.49 g

$$\frac{21.49 \text{ g}}{21.5 \text{ mL}} = \boxed{.999}534 \text{ g/mL}$$

1.00 g/mL

3.



$$\frac{9.18 \text{ g}}{3.14 \text{ mL}} = \boxed{2.923566} \text{ g/mL}$$

Density 2.92 g/mL

SG

$$\frac{2.92 \text{ g/mL}}{1.00 \text{ g/mL}} = 2.92$$

19.3 g/mL

4.

$$\begin{array}{r} 23.463\text{g} \quad \text{air} \\ - 21.374\text{g} \quad \text{water} \\ \hline \end{array}$$

2.089g

2.089mL

⑤

$$\begin{array}{r} 23.463\text{g} \\ \hline 2.089\text{mL} \end{array} = 11.231698\text{g/mL}$$

4

11.23g/mL

$1.123 \times 10^1 \text{g/mL}$

1. $1.0 \times 10^4 \text{ g}$

10,000 g

2. $2.0 \times 10^{-5} \text{ in}$

9. $3.82 \times 10^4 \text{ g}$

0.86 g/mL

$0.86 \text{ g} = 1 \text{ mL}$

$$\frac{3.82 \times 10^4 \text{ g} \times 1 \text{ mL}}{0.86 \text{ g}} =$$

44418.60465 mL

$4.44 \times 10^4 \text{ mL}$

44400 mL

7.

$$V = L \times W \times H$$

$$1 \text{ cm}^3 = 1 \text{ mL}$$

$$\frac{23.00 \text{ mm} \times 1 \text{ m} \times 100 \text{ cm}}{1000 \text{ mm} \times 1 \text{ m}} = 2.300 \text{ cm}$$

To go from mm to cm move the decimal one place to the left.

$$(2.300 \text{ cm})(2.300 \text{ cm})(2.300 \text{ cm}) = 12.167 \text{ cm}^3$$

$$12.167 \text{ mL}$$

$$8.90 \text{ g/mL} \quad 8.90 \text{ g} = 1 \text{ mL}$$

$$\frac{12.167 \text{ mL} \times 8.90 \text{ g}}{1 \text{ mL}} =$$

$$108.2863 \text{ g}$$

$$108.3 \text{ g}$$

$$1.083 \times 10^2 \text{ g}$$

5.

$$V = \pi r^2 h$$

$$\text{cm}^3$$

$$V = \pi (\text{cm})^2 \text{cm}$$

$$r = 2.63 \text{ cm}$$

$$h = 1.72 \text{ cm}$$

$$V = \pi (2.63)(2.63)(1.72)$$

$$V = 37.37574143 \text{ cm}^3$$

$$V = 37.37574143 \text{ mL}$$

$$V = 37.4 \text{ mL}$$

$$\underline{\underline{D}} = \frac{g}{\text{mL}} \quad 78.53g$$

$$\frac{78.53g}{37.37574143 \text{ mL}} =$$

$$2.101095443 \text{ g/mL}$$

$$2.10 \text{ g/mL}$$

$$6. \quad 0.781 = SG$$

$$0.781 \frac{g}{mL}$$

$$\frac{0.781 \cancel{g/mL}}{1.00 \cancel{g/mL}}$$

$$5L = 5000mL$$

$$0.781g = 1mL$$

$$\frac{5000mL \times 0.781g}{1mL} =$$

$$3905g \quad 4000g$$