

$$\overset{9.}{=} \frac{3.82 \times 10^4 \text{ g} \times 1 \text{ mL}}{0.86 \text{ g}} = \text{mL}$$

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

$$44418.604 \text{ mL}$$

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

$$44400 \text{ mL}$$

$$\frac{55 \text{ miles}}{\text{hr}}$$

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

10.

$$\frac{4 \text{ L} \times 1000 \text{ mL} \times 13.59 \text{ g}}{1 \text{ L} \times 1 \text{ mL}} = \text{g}$$

$$13.59 \text{ g} = 1 \text{ mL}$$

54360 g

50000 g

$5 \times 10^4 \text{ g}$

$$\frac{54360 \text{ g} \times 1 \text{ lb}}{454 \text{ g}} = \text{lbs}$$

119.7356828 lbs

100 lbs

6.
$$SG = \frac{0.781 \text{ g/mL}}{1.00 \text{ g/mL}}$$

$$SG = 0.781$$

b.) 0.781 g/mL $0.781 \text{ g} = 1 \text{ mL}$

$$\frac{5 \text{ L} \times 1000 \text{ mL} \times 0.781 \text{ g}}{1 \text{ L} \times 1 \text{ mL}} =$$

3905g

4000g

$$\frac{3905 \text{ g} \times 1 \text{ lb}}{454 \text{ g}} = 8.6013216 \text{ lbs}$$

2.

$$\frac{21.49}{21.5\text{mL}}\text{g} = 0.9995348\frac{\text{g}}{\text{mL}}$$

$$\underline{0.9995348\text{g}} = 1\text{mL}$$
$$\underline{1.00\text{g}} = 1\text{mL}$$

4.

$$\begin{array}{r} 23.463 \text{ g} \quad \text{air} \\ - 21.374 \text{ g} \quad \underline{\text{H}_2\text{O}} \\ \hline \end{array}$$

$$2.089 \text{ g}$$

$$2.089 \text{ mL}$$

$$\frac{23.463 \text{ g}}{2.089 \text{ mL}} = 11.2316 \frac{\text{g}}{\text{mL}}$$

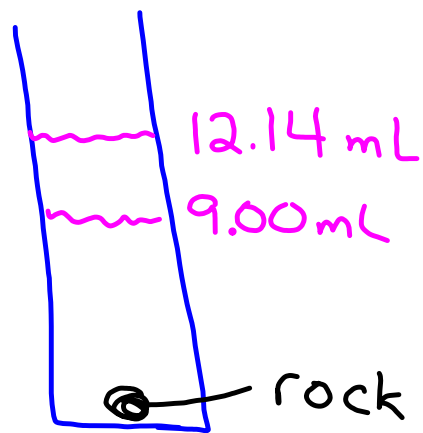
$$11.23 \frac{\text{g}}{\text{mL}}$$

1. 31.35 in or
 3.135×10^1 in

2. 42.6g or 4.26×10^1 g

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

3.



$$\begin{array}{r} 12.14 \\ - 9.00 \\ \hline 3.14 \text{ mL} \end{array}$$

$$\frac{9.18 \text{ g}}{3.14 \text{ mL}} = 2.92 \frac{\text{g}}{\text{mL}}$$

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

1. 47.93g

$H = 5.32\text{cm}$

$W = 0.0496\text{m}$

$L = 41.2\text{mm} \quad \pm .001\text{cm}$

$$\frac{0.0496\text{m} \times 100\text{cm}}{1\text{m}} = 4.96\text{cm}$$

$$\frac{41.2\text{mm} \times 1\text{m} \times 100\text{cm}}{1000\text{mm} \times 1\text{m}} = 4.12\text{cm}$$

~~$41.73\text{mm} = 4.173\text{cm}$~~

$$(4.96\text{cm})(4.12\text{cm})(5.32\text{cm}) = 108.715264\text{cm}^3$$

$$\frac{47.93\text{g}}{108.715264\text{mL}} =$$

$$0.4408 \frac{\text{g}}{\text{mL}}$$

$$0.441 \frac{\text{g}}{\text{mL}}$$

5.

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

$$V = \pi (2.63 \text{ cm})^2 (1.72 \text{ cm})$$

$$V = 37.375 \text{ cm}^3$$

$$\frac{78.53 \text{ g}}{37.375 \text{ mL}} = 2.101137 \frac{\text{g}}{\text{mL}}$$

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

7.

$$23.00 \text{ mm} = 2.300 \text{ cm}$$

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

$$(2.300)(2.300)(2.300) =$$

$$12.167 \text{ cm}^3$$

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

$$8.90 \text{ g} \approx 1 \text{ mL}$$