

Density Equation

$$\left(\frac{g}{mL}\right) D = \frac{M \text{ (mass) (g)}}{V \text{ (volume) (V)}}$$

(Density)

$$D_A = \frac{g A}{mL A} = \frac{g}{mL} A = g/mL A$$

Solving Density Equations

$$D = \frac{g}{mL} \quad M = 13.2g \quad V = 10.6mL$$

(solve for D) $[D = m/v]$

$$M = 13.2g \quad V = 10.6mL$$

$$D = \frac{M}{V} = \frac{13.2g}{10.6mL}$$

$$D = 1.2452g/mL = 1.25g/mL$$

Density Eqn. Forms

Base (solve for D)

$$D = \frac{M}{V} \left(\frac{g}{mL}\right)$$

Solve for M

$$M = D \cdot V (g)$$

Solve for V

$$V = \frac{M}{D} (mL)$$

Solving Density Equations

$$D = \text{---} \text{ g/mL} \quad M = 312.96 \text{ g} \quad V = 500.00 \text{ mL}$$

(Solve for D) $D = \frac{M}{V}$

$$M = 312.96 \text{ g} \quad V = 500.00 \text{ mL}$$

$$D = \frac{312.96 \text{ g}}{500.00 \text{ mL}}$$

$$= 0.62592 \text{ g/mL} = \underline{0.63 \text{ g/mL}}$$

Density Eqn. Forms

Base (solve for D)

$$D = \frac{M}{V} \left(\frac{\text{g}}{\text{mL}} \right)$$

Solve for M

$$M = D \cdot V \text{ (g)}$$

Solve for V

$$V = \frac{M}{D} \text{ (mL)}$$