(1.44b) $\dfrac{232 \text{ mg cholesterol}}{100 \text{ mL blood}}$, 5.2ℓ blood   ,   ___ g cholesterol.

$\left|\dfrac{232 \text{ mg cholesterol}}{100 \text{ mL blood}}\right| \dfrac{1 \text{ g chol}}{1000 \text{ mg chol.}}\left|\dfrac{5.2\ell \text{ blood}}{}\right| \dfrac{1000 \text{ mL}}{1\ \ell}$

Conversion factors

= 1

Sep 12-7:53 AM

(1.41c) $3,666,500 \text{ m}^3 = \underline{\qquad}\ \ell$ [exponential form]

$*\quad \dfrac{1\ \ell}{10^{-3}\ m^3}$

$\left|\dfrac{3,666,500\ m^3}{}\right| \dfrac{1\ \ell}{10^{-3}\ m^3} = 3666500000\ \ell$

$3.6665 \times 10^9\ \ell$

Sep 12-8:01 AM

How many ℓ are in $\underline{8.55 \text{ miles}^3}$ of ocean water?

$$1\ell = 10^{-3} m^3$$
$$1 \text{mile} = 1.6093 \text{ Km}$$

$$\frac{8.55 \, \text{Mi}^3}{} \cdot \frac{(1.6093)^3 \text{ Km}^3}{1 \text{ Mile}^3} \cdot \frac{(1000)^3 \, M^3}{1^3 \, Km^3} \cdot \frac{1\ell}{10^{-3} \, M^3}$$

$$\boxed{3.56 \times 10^{13} \, \ell}$$

$$\boxed{{}^{\circ}F = \frac{9}{5}{}^{\circ}C + 32}$$

$$Y = MX + b$$

$\boxed{\text{eqn for straight line}}$

2 points → Line

	x	${}^{\circ}F$
FP/MP	0	32
BP	100	212

$\boxed{H_2O}$
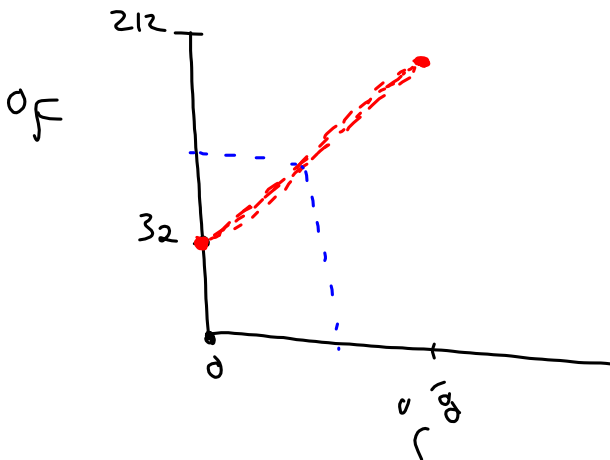
Slope $\dfrac{\Delta Y}{\Delta X} = \dfrac{(212-32)}{(100-0)}$

$$= \frac{180}{100} = \frac{9}{5}$$

212

${}^{\circ}F$

32

0

${}^{\circ}C$

Finish chap 1..FLM separations, temp scale   **2**

$$^\circ MF \quad 77 \quad | \quad 150$$
$$^\circ JD \quad 1500 \quad | \quad 2390$$
$$\qquad\qquad FP \qquad\qquad BP$$

$$Y = Mx + b$$

$$\boxed{^\circ M = \frac{73}{890}(J) + \,^-46}$$

$$M = \frac{\Delta Y}{\Delta x} = \frac{150-77}{2390-1500} = \boxed{\frac{73}{890}}$$

$$77 = \frac{73}{890}(1500) + \boxed{b}$$

$$b = -46$$

Sep 12-8:45 AM

Precision (Clustering)   Accuracy Bullseye
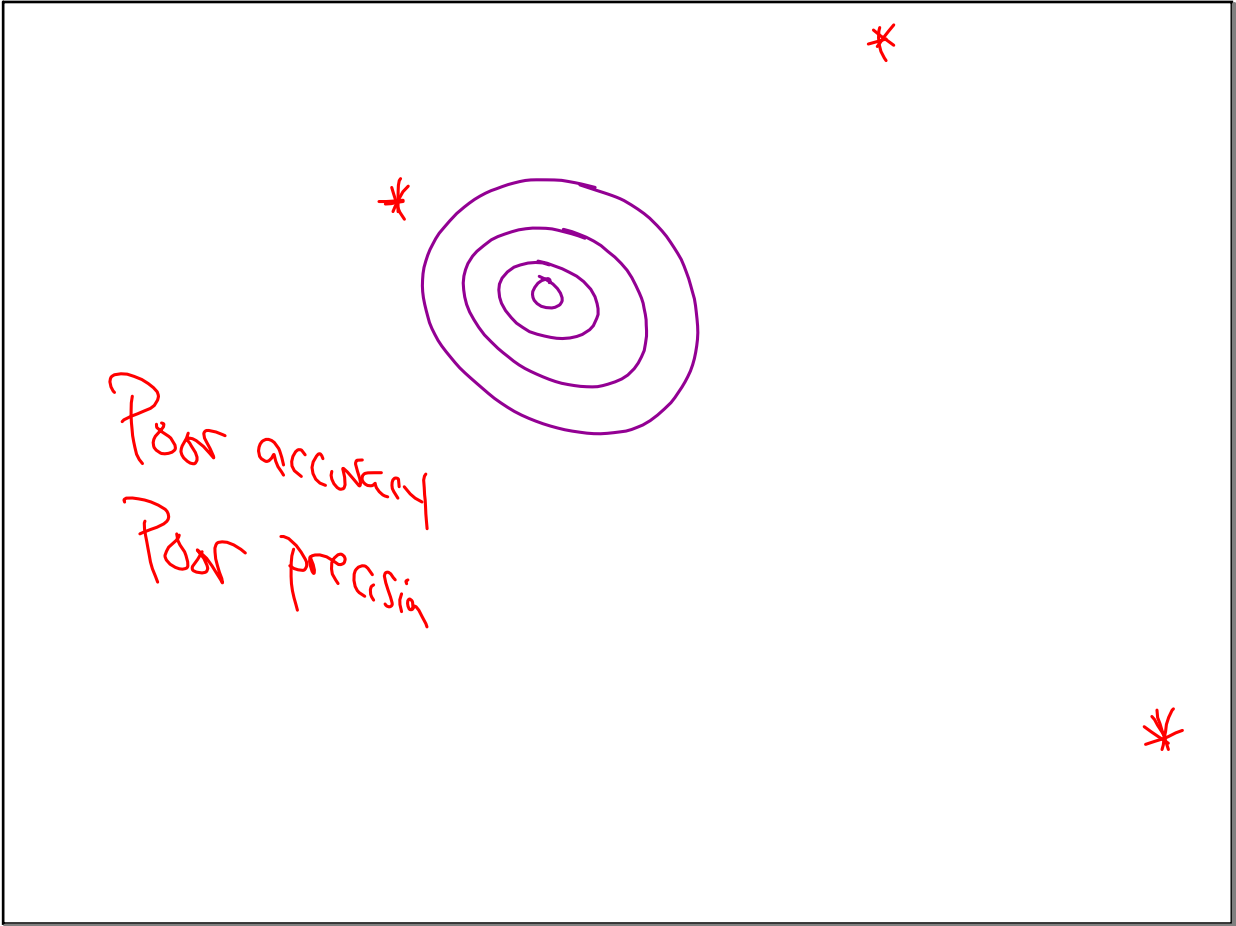

Not near target → Not accurate
Good precision

Good cluster on target

Sep 12-8:53 AM

Poor accuracy
Poor precision
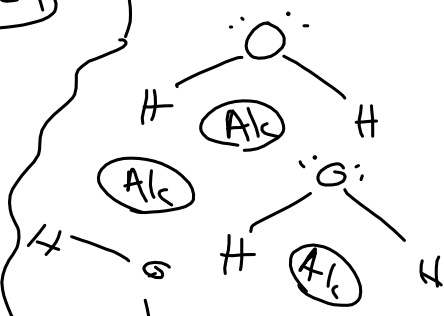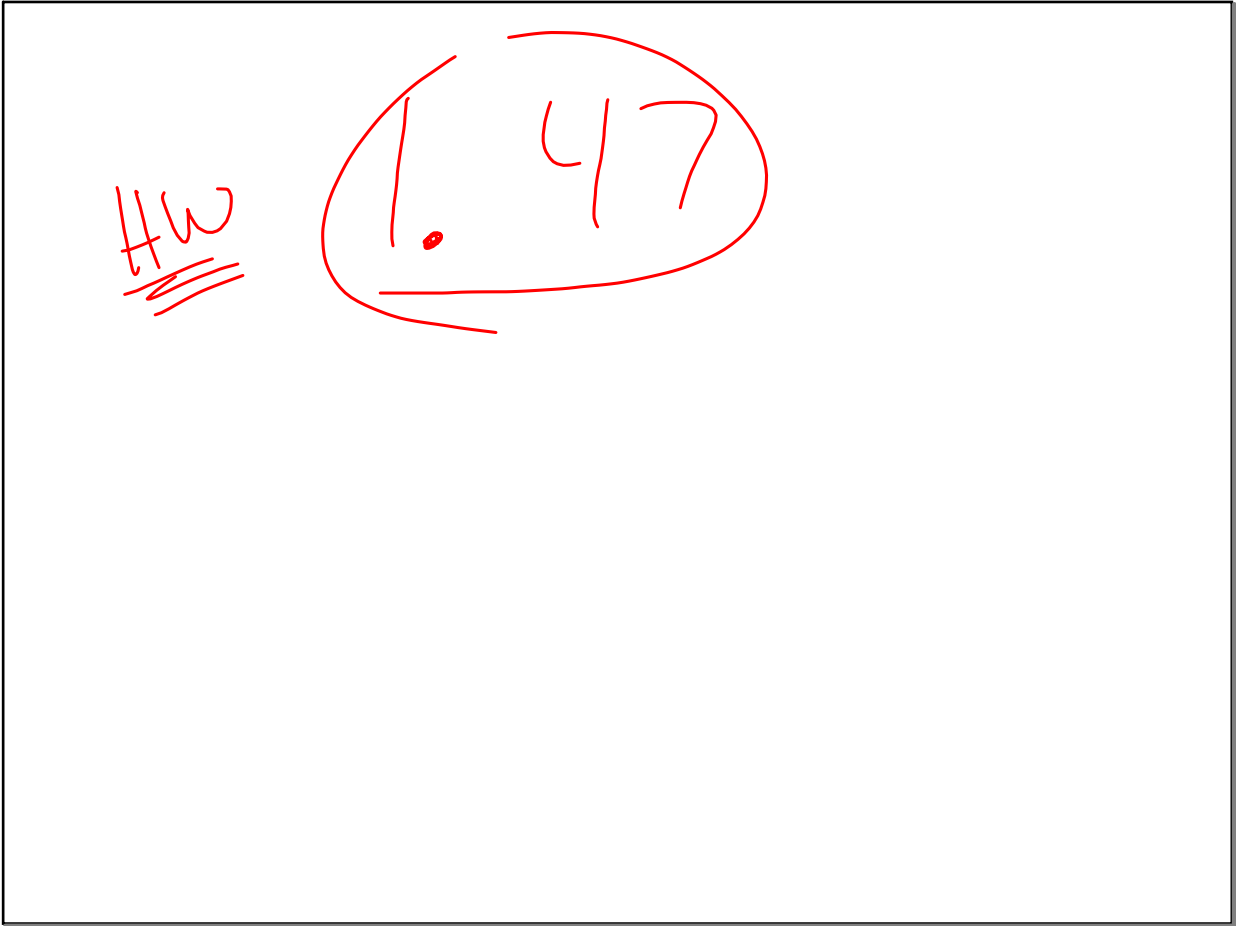
Sep 12-8:58 AM

Separating Mixtures

① Sand + Gravel
1L

1.2 L

Filter
different sized solids

③ Water + Alcohol
BP 100°C   80°C

Distillation

Sep 12-8:59 AM

HW

1.47

Sep 12-9:17 AM