

P465 (3) 20g  $H_2SO_4$ , 250ml solution

Find M

$$M = \frac{\text{moles solute}}{\text{L solution}}$$

<del>20g <math>H_2SO_4</math></del>		1 mole $H_2SO_4$	=	0.816 M
0.250 L		98 <del>g <math>H_2SO_4</math></del>		

6M  $\rightarrow$   $\frac{6 \text{ moles}}{1 \text{ L}}$

Dec 18-8:23 AM

⑦ 430ml, ~~0.45M NaCl~~. Evap all water  
 — g NaCl left.

NaCl (aq)

$$\frac{0.45 \text{ mole NaCl}}{1 \text{ L}}$$

<del>0.45 mole NaCl</del>		<del>0.430 L</del>		58 g NaCl	=	11.223g NaCl
1 L				1 mole NaCl		

Dec 18-8:54 AM

Isotopes → SAME element with a different # neutrons.

$^{12}_6\text{C}$

Also have  $^{13}\text{C}$  and  $^{14}\text{C}$

~~Mass = 12.000g~~

12.0111g?

$^{12}\text{C}$ ,  $^{13}\text{C}$ ,  $^{14}\text{C}$

largest quantity  
closest mass

Dec 18-9:10 AM

Mass on PT → weighted average of all the naturally occurring isotopes.

Ex) Copper

$^{63}\text{Cu}$  69.17% +  $^{65}\text{Cu}$  30.83% = 100%

Weighted average →  $0.6917(63) + 0.3083(65) = 63.61\text{amu}$

% composition  
mass of that isotope

Dec 18-9:14 AM

Isotopes of "Beanium" (element)

4 isotopes of Bn

White Bn % =  $\frac{\# \text{White}}{\text{Total \#}}$

Red Bn

Black Bn

Brown Bn

Find % of each

**DUE MONDAY**

Dec 18-9:28 AM

Monday / Tuesday

% H<sub>2</sub>O in a hydrate

CuSO4 \cdot 5H2O

Dec 18-10:00 AM