

Warm Up

mass# = p + n

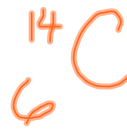
atomic# = protons = electrons

Isotope	protons	neutrons	electrons
copper - 64	29	64 - 29 35	29
chromium - 53	24	29	
sulfur - 33	16	17	16
calcium - 41	20	21	20
gold - 108	79	29	79

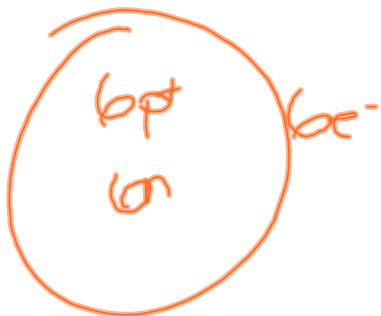
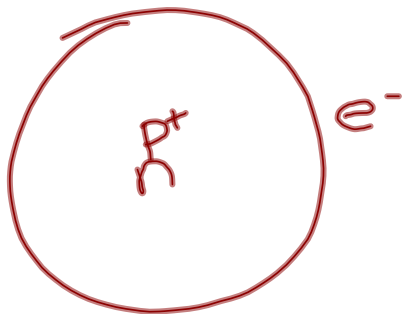
Homework - Isotopes Worksheet

Isotope Name	Atomic Number	Mass Number	Symbol	# of Protons	# of Neutrons
carbon - 14			${}^{14}_6\text{C}$		
				-	
				.	
hydrogen - 2					
lawrencium - 257					
hydrogen-1	1	1	${}^1_1\text{H}$	1	0

Homework #17-24 Worksheet



What is an isotope??



12.01

Mass # = 12

Calculating Atomic Mass

Average

To calculate the atomic mass of an element, multiply the mass of each isotope by its natural abundance, expressed as a decimal, and then add the products.

Ex. Carbon has two stable isotopes: carbon - 12 (12.000 amu) which has natural abundance of 98.89%, and carbon - 13 (13.003 amu), which has natural abundance of 1.11%.
What is the atomic mass of carbon?

$$12.000(0.9889) + 13.003(0.0111) = 12.01$$

Homework

Isotope worksheet

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