Homework #17-20

c) $^{108}_{47}Ag$

n = 61

M.N.
(p+n) ——→
A.N.
(p=e)

e) $^{207}_{82}Pb$

$\boxed{n = 125}$

a) $^{12}_{6}C$

b) $^{19}_{9}F$

c) $^{9}_{4}Be$

4 p⁺
4 e⁻
5 n

18. $^{16}_{8}O$

8n

$^{17}_{8}O$

9n

$^{18}_{8}O$

10n

$^{50}_{24}Cr$

26n

$^{52}_{24}Cr$

28n

$^{53}_{24}Cr$

29n

Isotope	protons	neutrons	electrons
copper - 64			
gold - 108			
sulfur - 33			

Sample Problem

Element X has two natural isotopes. The isotope with a mass of 10.012 amu (^{10}X) has a relative abundance of 19.91%. The isotope with a mass of 11.009 amu (^{11}X) has a relative abundance of 80.09%. Calculate the atomic mass of this element.

$^{10}X \rightarrow 10.012 \text{ amu} \left(19.91\%\right)$

$^{11}X \rightarrow 11.009 \text{ amu} \left(80.09\%\right)$

$\left(10.012 \text{ amu}\right)\left(0.1991\right) + \left(11.009 \text{ amu}\right)\left(0.8009\right)$

$= \boxed{10.81}$

Course: 27 (70%)

Exam: 96 (30%)

$27(0.70) + 96(0.3)$

$= \boxed{47.7\%}$

24.01

12.01

^{12}C

① ^{12}C

12.48   ② ^{13}C

③ ^{14}C

Homework

Isotope worksheet

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Homework - Isotopes Worksheet

Isotope Name	Atomic Number	Mass Number	Symbol	# of Protons	# of Neutrons
carbon - 14	6	14	$^{14}_{6}C$	6	8
hydrogen - 2					
lawrencium - 257					