

1: Up and Atom  
HW 2: Isotope Practice

Name:  
Class:

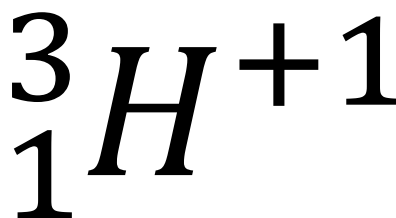
Date:

1. What is an isotope?

2. Explain/ show how to find each item.

Atomic # =

Mass # =



Electrons =

3. Complete the table below.

Symbol	Atomic #	# p <sup>+</sup>	# N <sup>0</sup>	# e <sup>-</sup>	Mass #	Charge
${}^3_1H$						0
				14	34	+2

4. Chlorine-35 has an atomic mass of 34.968852 amu, with an abundance of 75.77%. Chlorine-37 has an atomic mass of 36.965903 amu, and an abundance of 24.23%. What is the weighted average of chlorine?

Isotope	% Abundance	Decimal %	Atomic Mass	Weighted Mass
Chlorine – 35				
Chlorine – 37				
TOTAL:				

*Average Atomic Mass = (% isotope A × mass isotope A) + (% isotope B × mass isotope B) + ...*

5. Calculate the atomic mass of lead. The four lead isotopes have atomic masses and relative abundances of 203.973 amu (1.4%), 205.974 amu (24.1%), 206.976 amu (22.1%) and 207.977 amu (52.4%).

6. Calculate the atomic mass of silicon. The three silicon isotopes have atomic masses and relative abundances of 27.9769 amu (92.2297%), 28.9765 amu (4.6832%) and 29.9738 amu (3.0872%).