Chapter 16.2

Calculating Average Atomic Mass Worksheet:

1) Three isotopes of Silicon occur in nature:

Isotopes of Silicon:	Percent Abundance:	Atomic Mass:
Silicon-28	92.23%	27.97693 amu
Silicon-29	4.68%	28.97649 amu
Silicon-30	3.09%	29.97377 amu

Calculate the average atomic mass for the three isotopes of Silicon.

2) Two isotopes of Rubidium occur naturally:

Isotopes of Rubidium:	Percent Abundance:	Atomic Mass:
Rubidium-85	72.15%	84.9118 amu
Rubidium-87	27.85%	86.9092 amu

Calculate the average atomic mass for the two isotopes of Rubidium.

3) Only two isotopes of Copper naturally occur:

Isotopes of Copper:	Percent Abundance:	Atomic Mass:
Copper-63	69.17%	62.9396 amu
Copper-65	30.83%	64.9278 amu

Calculate the average atomic mass for the two isotopes of Copper.

4) Chlorine has two naturally occurring isotopes:

Isotopes of Chlorine:	Percent Abundance:	Atomic Mass:
Chlorine-35	75.78%	34.969 amu
Chlorine-37	24.22%	36.966 amu

Calculate the average atomic mass for the two isotopes of Chlorine.

5) Two isotopes of Bromine naturally occur:

Isotopes of Bromine:	Percent Abundance:	Atomic Mass:
Bromine-79	50.69%	78.92 amu
Bromine-81	49.31%	80.92 amu

Calculate the average atomic mass for the two isotopes of Bromine.

6) Lead has four naturally occurring isotopes:

Isotopes of Lead:	Percent Abundance:	Atomic Mass:
Lead-204	1.4%	204 amu
Lead-206	24.1%	206 amu
Lead-207	22.1%	207 amu
Lead-208	52.4%	208 amu

Calculate the average atomic mass for the four isotopes of Lead.