

Isotopes Worksheet

1. Determine the number of protons, neutrons, and electrons for the following

a. ^{28}Si p _____ n _____ e _____

b. ^{131}Xe p _____ n _____ e _____

c. $^{207}\text{Pb}^{+2}$ p _____ n _____ e _____

d. $^{127}\text{I}^{-1}$ p _____ n _____ e _____

2. Silver exists as 51.84% ^{107}Ag and 48.16% ^{109}Ag . The actual mass of ^{107}Ag is 106.90509 amu and the actual mass of ^{109}Ag is 108.90476. What is the average atomic mass of silver?

3. The average atomic mass of copper is 63.55 amu. If the only two isotopes of copper have masses of 62.94 amu and 64.93 amu, what are the percentages of each?

4. Boron has only two isotopes, ^{10}B with a mass of 10.0129 and ^{11}B with a mass of 11.0093. If the average atomic mass of boron is 10.81, what are the percentages of each isotope?