

ATOMIC NUMBERS & ATOMIC MASSES

The **atomic number** of an element represents the number of protons in the nucleus of atoms of that specific element. No other element has that specific number of protons. Atomic numbers can be found on most Periodic Charts/Tables. The atomic number will always be a whole number value without decimals. Look on a periodic chart at the elements listed below. Do you see how to find an elements atomic number?

<u>ELEMENT</u>	<u>ATOMIC NUMBER</u>
Hydrogen (H)	1
Krypton (Kr)	36
Potassium (K)	19
Gold (Au)	79

The **atomic mass** of an element represents the relative mass of average atoms of that element compared to atoms of carbon-12 (C-12) which has a mass of exactly 12.

The atomic masses of the elements are known accurately to several decimal places, but for our purposes, we will usually round the atomic masses to one decimal place.

Look on a periodic chart at the elements listed below. Do you see how to find an elements atomic mass?

<u>ELEMENT</u>	<u>ATOMIC MASS</u>
Hydrogen (H)	1.0
Krypton (Kr)	83.8
Potassium (K)	39.1
Gold (Au)	197.0

Practice Problems

1. Use your periodic table to find the atomic number and atomic mass rounded to one decimal place of each of the following elements:

Element Symbol	Name	Atomic Number	Atomic Mass
Fe			
Ca			
Cu			
Mn			
Rb			
Na			
Co			
Ag			
Ar			
Pb			
Cl			
Sn			