NAME_____PERIOD _____ DATE_____

ATOMS AND THE PERIODIC TABLE

WORKSHEET 1

BACKGROUND IN REVIEW:

Atomic Mass - the average amount of matter in an atom; generally equal to the number of protons and neutrons.
Atomic Number - the number of protons in the nucleus of an atom
[Atomic Mass - Atomic Number = Number of neutrons]
In ***neutral*** atoms, the amount of positive charge must equal the amount of negative charge. So, the number of electrons is equal to the number of protons.

Fill in the missing information.

Element	Symbol	Atomic No.	No. of Protons	No. of Electrons	Atomic Mass	No. of Neutrons
Sodium	Na	11	11	11	23	12
	C					
				7		
Potassium						
Oxygen						
					20	
	Kr					
		29				
			2			
				5		
	Fe					
			27			
		92				
	W					
Xenon						
				3		

Isotope Practice Worksheet **Name:** _____

1. Here are three isotopes of an element: $_{6}^{12}C$ $_{6}^{13}C$ $_{6}^{14}C$
   a. The element is: _____
   b. The number 6 refers to the _____
   c. The numbers 12, 13, and 14 refer to the _____
   d. How many protons and neutrons are in the first isotope? _____
   e. How many protons and neutrons are in the second isotope? _____
   f. How many protons and neutrons are in the third isotope? _____

2. Complete the following chart:

Isotope name	atomic #	mass #	# of protons	# of neutrons	# of electrons
92 uranium-235					
92 uranium-238					
5 boron-10					
5 boron-11					

3. Naturally occurring europium (Eu) consists of two isotopes was a mass of 151 and 153. Europium-151 has an abundance of 48.03% and Europium-153 has an abundance of 51.97%. What is the atomic mass of europium?

4. Strontium consists of four isotopes with masses of 84 (abundance 0.50%), 86 (abundance of 9.9%), 87 (abundance of 7.0%), and 88 (abundance of 82.6%). Calculate the atomic mass of strontium.