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.

5. Boron consists of two isotopes in nature. 81% of all boron atoms have a mass number of 11, and the rest of them have a mass number of 10. *Calculate* the average atomic mass of boron.

6. An imaginary element called Cafetorium (Ct) is discovered to have three isotopes. 25% are Ct-288, 66% are Ct-290, and the rest are Ct-291. What would be the atomic mass of Cafetorium?

7. An atom has 10 neutrons and a mass number of 19. Which of the following is an isotope of this element?

^{20}F ^{20}Ne ^{19}Ne ^{39}K ^{65}Cu