ISOTOPE WORKSHEET Pract. Qz   Name _____

Date _____ Period _____

1. Complete the following Table:

ELEMENT NAME	SYMBOL	PROTONS	NEUTRONS	ATOMIC NUMBER	MASS NUMBER
CARBON-13					
	$^{28}_{14}Si$				
		33			
					74
			70		121
				89	227
		92			235
COPPER-63					
		24	37		

2. Define the following terms:

   a. Isotope

   b. Mass number

   c. Atomic Mass Unit (amu)

   d. Average Atomic Mass

3. Answer the following problems, show all work.

   a. Oxygen has the following Isotopes, Oxygen – 16 (abundance = 95%, mass = 16.016 amu), and Oxygen – 15 (abundance = 5%, mass = 15.015 amu). What is the atomic mass of Oxygen?

   b. Hydrogen has three isotopes, Hydrogen – 1 (abundance = 96%, mass = 1.001 amu), and Hydrogen – 2 (abundance = 3%, mass = 2.002 amu) and Hydrogen – 3 (abundance = 1%, mass = 3.003 amu). What is the atomic mass of hydrogen?

   c. An unknown element has the following information, Isotope 1: Mass = 23.985 amu, abundance = 78.99%; Isotope 2: Mass = 24.986 amu, abundance = 10.00%; Isotope 3: Mass = 25.982 amu, abundance 11.01%. What is the atomic mass of this element, and what element is it most likely to be?