

Be sure to show all work, use the correct number of significant figures, circle final answers and use correct units in all problems.

1. Match the term on the left with the correct phrase on the right (7 points)

A. Isotope	___	Smallest subatomic particle; negative charge
B. Atomic Number	___	Same atomic number, different mass number
C. Neutron	___	Positive subatomic particle
D. Mass Number	___	Same mass number, different atomic number
E. Proton	___	Largest subatomic particle
F. Electron	___	Number of protons
G. Isobar	___	Number of protons and neutrons

2. Calculate the atomic number and mass number for an atom with 30 protons, 34 neutrons and 28 electrons. What element is it? What is the atom's symbol? Give the symbol for this isotope in the form A_ZX . (5 points)

3. Classify each of the statements below as being True (T) or false (F). (1 point each, 8 points total)

An elemental symbol contains a capital letter followed by a small letter	___
The properties of elements are always different from the properties of the compounds they formed	___
Two objects, both having a negative charge, attract each other	___
Two atoms of silicon each with a different number of electrons will always have the same mass number	___
The mass number for each isotope of an element will be different	___
Protons and electrons act like a type of "glue" that holds the atom together	___
Democritus determined that most of the atom was empty	___
An isotope of neptunium with 93 neutrons is written as neptunium-93	___