

Chemistry  
EOC Review 1: Atom

1. Compared to the charge and mass of a proton, an electron has
  - a. the same charge and a smaller mass
  - b. the same charge and the same mass
  - c. an opposite charge and a smaller mass
  - d. an opposite charge and the same mass
2. When alpha particles are used to bombard gold foil, most of the alpha particles pass through undeflected. This result indicates that most of the volume of a gold atom consists of \_\_\_\_\_.
  - a. deuterons
  - b. neutrons
  - c. protons
  - d. unoccupied space
3. A proton has approximately the same mass as
  - a. a neutron
  - b. an alpha particle
  - c. a beta particle
  - d. an electron
4. When electrons in an atom in an excited state fall to lower energy levels, energy is
  - a. absorbed, only
  - b. released, only
  - c. neither released nor absorbed
  - d. both released and absorbed
5. A neutron has approximately the same mass as a
  - a. an alpha particle
  - b. a beta particle
  - c. an electron
  - d. a proton
6. Which symbols represent atoms that are isotopes?
  - a. C-14 and N-14
  - b. O-16 and O-18
  - c. I-131 and I-131
  - d. Rn-222 and Ra-222
7. Which element's ionic radius is smaller than its atomic radius?
  - a. neon
  - b. nitrogen
  - c. sodium
  - d. sulfur
8. Which atom contains exactly 15 protons?
  - a. P-32
  - b. S-32
  - c. O-15
  - d. N-15
9. An ion with 5 protons, 6 neutrons, and a charge of 3+ has an atomic number of

- a. 5
- b. 6
- c. 8
- d. 11

10. What is the mass number of an atom which contains 28 protons, 28 electrons, and 34 neutrons?
- a. 28
  - b. 56
  - c. 62
  - d. 90