Name: _____ Date: _____

Protons

1. The number of protons in an element has to be an even number.
   a. True
   b. False

2. A proton has approximately the same mass as a neutron.
   a. True
   b. False

3. Cobalt has 27 protons.
   a. True
   b. False

4. Where is the proton located?
   a. in the nucleus
   b. outside the nucleus

5. Protons have what type of charge?
   a. neutral
   b. positive
   c. negative
   d. none

6. A proton has approximately the same mass as _____.
   a. a neutron
   b. a beta particle
   c. an alpha particle
   d. an electron

7. If an element has an atomic number of 24 and a mass number of 52, how many protons does it have?
   a. 24
   b. 28
   c. 76
   d. 12

8. Which statement correctly compares the number of protons in oxygen and carbon?
   a. carbon has 2 more protons than oxygen
   b. oxygen has 2 more protons than carbon
   c. carbon has 4 more protons than oxygen
   d. oxygen has 4 more protons than carbon

9. Why does the proton determine the identity of an atom?
   a. The number of protons is also the atomic mass.
   b. The number of protons determines chemical properties, such as reactivity.
   c. The number of protons in an atom's nucleus determines an atom's atomic number.
   d. The number of protons decides an atom's name.

10. Which statement is most correct about the number of protons in an element and the arrangement of the Periodic Table?
    a. An element in period 4 of the Periodic Table will have more protons than a Period 3 element will.
    b. An element in period 3 of the Periodic Table will have more protons than a Period 4 element will.
    c. An element in period 3 of the Periodic Table will have the same number of protons as a Period 4 element will.
    d. There is no correlation between the period numbers on Periodic Table and the number of protons in the elements.