

Chapter 4 Atomic Structure

Atomic Number and Mass Number (page 110)

6. Is the following sentence true or false? Two atoms of the same element can have different numbers of protons. _____
7. What is an atomic number? _____

8. Circle the letters that identify quantities that are always equal to an element's atomic number.
 - a. number of nuclei
 - b. number of protons
 - c. number of neutrons
 - d. number of electrons
9. Is the following sentence true or false? Two different elements can have the same atomic number. _____
10. What is the mass number of an atom? _____

11. Complete the equation in the table below.

Number of neutrons = _____ - _____

Isotopes (page 112)

12. Every atom of a given element has the same number of _____ and _____.
13. Every atom of a given element does not have the same number of _____.
14. What are isotopes? _____

15. All oxygen atoms have 8 protons. Circle the letter of the number of neutrons in an atom of oxygen-18.

a. 8	b. 9
c. 10	d. 18
16. Is the following sentence true or false? Isotopes of oxygen have different chemical properties. _____
17. Water that contains hydrogen-2 atoms instead of hydrogen-1 atoms is called _____.