1. Silicon (Si) and boron (B) are called **metaloids** because they _____.
   Circle the answer.
   a. always act as metals
   b. always act as nonmetals
   c. act as both metals and nonmetals

2. Carbon (C) has 4 electrons in its valence shell. How many more electrons does carbon need to have a full valence shell?
   Write the answer.

3. Which atom has the largest atomic radius?
   - a. Na
   - b. K
   - c. Li

4. How many isotopes does fluorine have?
   - a. 1
   - b. 2
   - c. 3

5. What happens to the atomic number as you read from left to right across any period in the periodic table?
   - a. increases
   - b. decreases
   - c. remains the same

6. Circle the answer.
   An atom with **seven valence electrons** will only need one more electron to bond to another atom. This is a characteristic of _____.
   - a. metals
   - b. noble gases
   - c. nonmetals

7. As you go from top to bottom down any group in the periodic table, the number of valence electrons _____.
   - a. increases
   - b. decreases
   - c. remains the same

8. What are isotopes?
   - a. all elements
   - b. some elements
   - c. none of the above

9. Which statement correctly completes the sentence?
   - a. Na has 8 more protons
   - b. K has 8 more protons than Na
   - c. K has 8 more protons than Na

10. Some atomic mass numbers are **not** whole numbers because some atoms have _____.
    - a. different numbers of electrons
    - b. neutrons missing matter
    - c. many isotopes with different masses

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1. Silicon (Si) and boron (B) are called metalloids because they _______.
   a. always act as metals
   b. always act as nonmetals
   c. act as both metals and nonmetals

2. Carbon (C) has 4 electrons in its valence shell. How many more electrons does carbon need to have a full valence shell?
   Write the answer.

3. Which atomic number is missing?
   a. 13
   b. 23
   c. 33

4. What happens to the atomic number as you read from left to right across any period in the periodic table?
   a. increases
   b. decreases
   c. remains the same

5. Hydrogen (H) has 1 proton, and cesium (Cs) has 55 protons.
   a. Na has 7 more electrons than K
   b. K has 8 more protons than Na
   c. K has a smaller atomic mass

6. Circle the answer.
   An atom with seven valence electrons will only need one more electron to bond to another atom. This is a characteristic of _______.
   a. metals
   b. noble gases
   c. nonmetals

7. As you go from top to bottom down any group in the periodic table, the number of valence electrons _______.
   a. increases
   b. decreases
   c. remains the same

8. Some atomic mass numbers are not whole numbers because some atoms have _______.
   a. different numbers of electrons
   b. neutrons missing matter
   c. many isotopes with different masses