

Assessment

Quiz**Section: Trends in the Periodic Table**

In the space provided, write the letter of the term or phrase that best answers the question.

- _____ 1. Ionization energy is the energy required to remove _____ from an atom of an element.
- the electron cloud
 - all electrons
 - one electron
 - an ion
- _____ 2. Across a period in the periodic table, ionization energy generally
- decreases.
 - decreases and then increases.
 - increases.
 - remains constant.
- _____ 3. The change in ionization energy down a group is due to
- increased electron shielding.
 - decreased charge of the nucleus.
 - increased neutrons in the nucleus.
 - Both (a) and (b)
- _____ 4. When determining the size of an atom by measuring the bond radius, the radius of an atom is
- equal to the distance between nuclei.
 - one-half the distance between nuclei.
 - twice the distance between nuclei.
 - one-fourth the distance between nuclei.
- _____ 5. Across a period in the periodic table, atomic radii generally
- decrease.
 - decrease, then increase.
 - increase.
 - increase, then decrease.
- _____ 6. Down a group in the periodic table, atomic radii generally
- decrease.
 - remain constant.
 - increase.
 - vary unpredictably.

Quiz continued

- _____ 7. An element with the lowest electronegativity would be found in _____ of the periodic table.
- Group 1, Period 7
 - Group 3, Period 4
 - Group 5, Period 3
 - Group 17, Period 2
- _____ 8. Refer to a periodic table and determine which element has the lowest electron affinity.
- Cl
 - Se
 - Cs
 - Te
- _____ 9. As the atomic number of the metals of Group 1 increases, the ionic radius
- increases.
 - decreases.
 - remains the same.
 - cannot be determined.
- _____ 10. An element with the smallest anionic (negative-ionic) radius would be found in _____ of the periodic table.
- Group 1, Period 7
 - Group 3, Period 4
 - Group 5, Period 3
 - Group 17, Period 2