

## Assessment

**Quiz****Section: How Are Elements Organized?**

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

- \_\_\_\_\_ 1. In developing his periodic table, Mendeleev listed on cards each element's name, atomic mass, and
- atomic number.
  - electron configuration.
  - isotopes.
  - properties.
- \_\_\_\_\_ 2. Mendeleev's periodic table did not always list elements in order of increasing atomic mass because he grouped together elements with similar
- properties.
  - atomic numbers.
  - densities.
  - colors.
- \_\_\_\_\_ 3. Mendeleev predicted that the gaps in his periodic table represented
- isotopes.
  - radioactive elements.
  - permanent gaps.
  - undiscovered elements.
- \_\_\_\_\_ 4. The person whose work led to a periodic table based on increasing atomic number was
- Moseley.
  - Mendeleev.
  - Rutherford.
  - Cannizzaro.
- \_\_\_\_\_ 5. An electron that is found in the outermost shell of an atom and determines the atom's chemical properties is called a(n)
- valence electron.
  - paired electron.
  - p* electron.
  - octave electron.
- \_\_\_\_\_ 6. The periodic law states that the physical and chemical properties of elements are periodic functions of their atomic
- masses.
  - numbers.
  - radii.
  - structures.

**Quiz continued**

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- \_\_\_\_\_ 7. Refer to a periodic table. In which period is calcium?
- a. Period 2
  - b. Period 4
  - c. Period 6
  - d. Period 8
- \_\_\_\_\_ 8. Refer to a periodic table. In which group is calcium?
- a. Group 1
  - b. Group 2
  - c. Group 17
  - d. Group 18
- \_\_\_\_\_ 9. An element that has the electron configuration  $[\text{Ne}]3s^23p^5$  is in which period?
- a. Period 2
  - b. Period 3
  - c. Period 5
  - d. Period 7
- \_\_\_\_\_ 10. An element that has the electron configuration  $[\text{Ne}]3s^23p^5$  is in which group?
- a. Group 2
  - b. Group 5
  - c. Group 7
  - d. Group 17