

Name: _____

Date: _____

Chemistry: The Periodic Table and Periodicity

Directions: Answer each of the following questions. You need not use complete sentences.

1. What is the periodic law? **The properties of the elements repeat periodically**
2. By what property did Mendeleev arrange the elements? **Atomic Mass**
3. Who first published the classification of the elements that is the basis of our periodic table today? **Dmitri Mendeleev**
4. What is a period? How many are there in the periodic table?
A horizontal row in the periodic table. There are seven periods
5. By what property did Moseley suggest that the periodic table be arranged? **Atomic Number**
6. What is a group (also called a family)? **How many are there in the periodic table? A vertical column in the periodic table. There are 18 groups**
7. Give the names and chemical symbols for the elements that correspond to these atomic numbers:
 - a. 10 Ne; Neon
 - b. 18 Ar, Argon
 - c. 36 Kr, Krypton
 - d. 90 Th; Thorium**Ne; Neon Ar; Argon**
Kr; Krypton Th; Thorium
8. Which of the following pairs of elements belong to the same period?
a. Na and Cl b. Na and Li c. Na and Cu d. Na and Ne
9. List, by number, both the period and group of each of these elements.

	Symbol	Period	Group
a. beryllium	Be	2	2
b. iron	Fe	4	8
c. lead	Pb	6	14

10. State the number of valence electrons in an atom of:

a. chlorine	b. arsenic	c. calcium	d. sulfur
7	5	2	6