

Name: _____ Date: _____

CHEMISTRY Ions and Atoms

Part 1: Valence electrons. How many valence electrons does each atom of the given element have in the **ground state**? Type only the number into the box.
Values are 1 to 8.

1. C	<input type="text"/>
2. N	<input type="text"/>
3. Br	<input type="text"/>
4. Ne	<input type="text"/>
5. He	<input type="text"/>
6. B	<input type="text"/>
7. Be	<input type="text"/>
8. K	<input type="text"/>
9. As	<input type="text"/>
10. Se	<input type="text"/>

11. O	<input type="text"/>
12. Sr	<input type="text"/>
13. Mg	<input type="text"/>
14. Kr	<input type="text"/>
15. Br	<input type="text"/>
16. N	<input type="text"/>
17. Cl	<input type="text"/>
18. Al	<input type="text"/>
19. Ge	<input type="text"/>
20. Sn	<input type="text"/>

Part 2: Charges. The atom becomes a monoatomic ion during an ionic chemical reaction. What is the charge on that ion? Type the charges into the box. Use the examples below.

1+ 2+ 3+ 4+ 1- 2- 3- 4-

1. F	<input type="text"/>	11. S	<input type="text"/>
2. O	<input type="text"/>	12. As	<input type="text"/>
3. K	<input type="text"/>	13. Li	<input type="text"/>
4. Ba	<input type="text"/>	14. H	<input type="text"/>
5. Al	<input type="text"/>	15. Ca	<input type="text"/>
6. Mg	<input type="text"/>	16. Cs	<input type="text"/>
7. Br	<input type="text"/>	17. Se	<input type="text"/>
8. Na	<input type="text"/>	18. Cl	<input type="text"/>
9. I	<input type="text"/>	19. Fr	<input type="text"/>
10. Rb	<input type="text"/>	20. Sr	<input type="text"/>