

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	
2.	N	
3.	Br	
4.	Ne	
5.	He	
6.	B	
7.	Be	
8.	K	
9.	As	
10.	Se	

11.	O	
12.	Sr	
13.	Mg	
14.	Kr	
15.	Br	
16.	N	
17.	Cl	
18.	Al	
19.	Ge	
20.	Sn	

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	
2.	O	
3.	K	
4.	Ba	
5.	Al	
6.	Mg	
7.	Br	
8.	Na	
9.	I	
10.	Rb	

11.	S	
12.	As	
13.	Li	
14.	H	
15.	Ca	
16.	Cs	
17.	Se	
18.	Cl	
19.	Fr	
20.	Sr	