WKS: Chem 1
Ions & Electron Configurations I

Name: _____
Period: _____ Date: _____

1. Why do atoms form ions? What is the *Octet Rule*?

2. How do metals form ions? What is the sign of the charge on the ion? What kind of ion is this called?

3. How does the radius of the ion compare to the atom? Explain why.

4. How do nonmetals form ions? What is the sign of the charge on the ion? What kind of ion is this called?

5. How does the radius of the ion compare to the atom? Explain why.

Complete the following table.

Element	Config of Element	Config of Ion	#e^- gained/lost	Ion w/ Charge
ex Mg	[Ne] $3s^2$	[Ne]	2 e^- lost	Mg^{2+}
6. K				
7. Cl				
8. Al				
9. O				
10. N				
11. Sr				
12. Te				
13. Rb				
14. Br				
15. P				

16. What trend is present for the electron configurations of all of the cations above? What trend is present for the electron configurations of all of the anions?

17. Explain how the period and group trends in **ionic radii** are related to electron configuration.