Name:_____Per: ___

Writing Electron Configurations

Element	Electron Configuration Notation (Do this column 1st!)	Noble-Gas Notation
1. Li		
2. F		
3. Ne		
4. Si		
5. Ti		
6. Br		
7. Pb	Do Noble gas notation only (too long)	
8. U	Do Noble gas notation only (too long)	

Directions: Fill in the following table based on each noble gas configuration

Noble Gas Configuration	Period (Row)	Block (s,p,d,f)	Group Number	# of Valence electrons	Identify the Element
9. $[He]2s^2 2p^1$					
10. $[Ne]3s^2 3p^5$					
11. $[Ar]4s^2 3d^6$					
12. $[Kr]5s^1$					
13. $[Xe]6s^2 4f^{14} 5d^{10}$					

14. Why is the **$4s^2$** filled with electrons before the **$3d^6$** as shown in this noble gas configuration (**$[Ar]4s^2 3d^6$**) ?

15. a. What are valence electrons? Why are valence electrons so important to chemists?

b. How can one use the periodic table to determine the number of valence electrons for an atom?