

Name: _____ Per: _____

Writing Electron Configurations

Element	Electron Configuration Notation (Do this column 1 st !)	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 4s² filled with electrons before the 3d⁶ as shown in this noble gas configuration ([Ar]4s²3d⁶) ?

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?