

UNDERSTANDING ELECTRON CONFIGURATIONS  
CHAPTER 5 SECTION 5.1-5.2 pg 127-136

1. How does the Bohr Model differ from the Quantum Mechanical Model?

2. How does the principal energy level of 1 differ from the principle energy level of 3?

a. Which is further from the nucleus?	
b. What has the least energy? The most?	
c. Which can hold the most electrons? What is this total?	

3. For each orbital describe the shape (to the best of your ability) the number of shells in each orbital, and the total number of electrons each orbital can hold

Orbital	Shape	# of Shells	Total number of electrons
<b>s</b>			
<b>p</b>			
<b>d</b>			
<b>f</b>			

4. Principal energy levels are divided into sublevels. Complete the following table

Principal Energy Level	Number of sublevels it contains	Specific Sublevels	Total number of electrons each level can hold
1			
2			
3			
4			

5. Determine the number of electrons that would be found in each of the energy levels/sublevels of the following elements

Element	Total # of e-	1s	2s	2p	3s	3p	4s	3d	4p
Lithium									
Sodium									
Oxygen									
Iron									
Bromine									

6. Write the electron configuration for each of the elements in #5

Li:

Na:

O:

Fe:

Br: