Electron Orbitals, Diagrams, & Configurations Practice - Chemistry Name: _____Pd: ___

1. Describe the following:
   a. Schrodinger's model

   b. electron cloud

   c. orbital

2. Using your textbook (pg. 155) and looking at the patterns, finish filling in this chart.

Principal **E**nergy **L**evel (n=?)	Orbital Types (sublevels available)	# of orbitals per level	Total # of orbitals per P.E.L. (n^2)	# of e's per orbital type	Total # of e's per P.E.L. ($2n^2$)
1	s	1	1		2
2					
	p			6	
3					
		5			
4					
				14	

3. Draw the orbital configurations for:
   a. Magnesium

   b. Neon

   c. Nitrogen

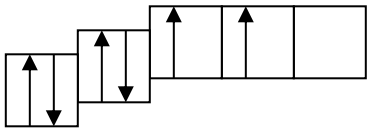
   d. Aluminum

   e. Bromine

   f. Scandium

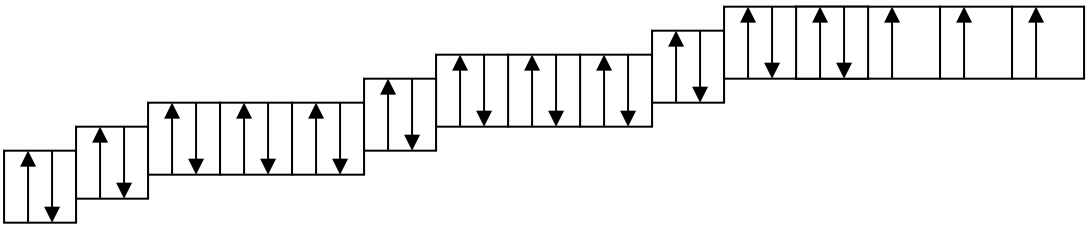
4. Identify the following elements from their orbital diagrams:

a.



_____

b.



_____

5. Identify these elements using their ending configuration:

a. $4s^2$ _____

b. $3d^2$ _____

c. $2p^1$ _____

d. $2s^1$ _____

e. $4p^4$ _____

f. $2p^3$ _____

g. $3p^6$ _____

h. $3p^2$ _____

i. $3d^{10}$ _____

j. $3p^5$ _____

6. Write the electron configuration for the following:

a. Krypton _____

b. Silver _____

c. Silicon _____

d. Helium _____

e. Chlorine _____

f. Oxygen _____

g. Sodium _____

h. Lead _____