Name: _____ Per: _____ Date: _____

Ch. 6 Cramsheet

1. Review your notes about how to write electron configurations and orbital diagrams.
2. Write the electron configurations for the following elements:
   example: For oxygen, e.c. is $1s^2 2s^2 2p^4$ and for scandium e.c. is $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^1$

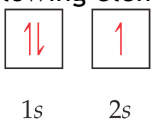
   a. Mg

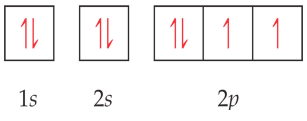
   b. Si

   c. Ti

   d. Sr

   e. Pu

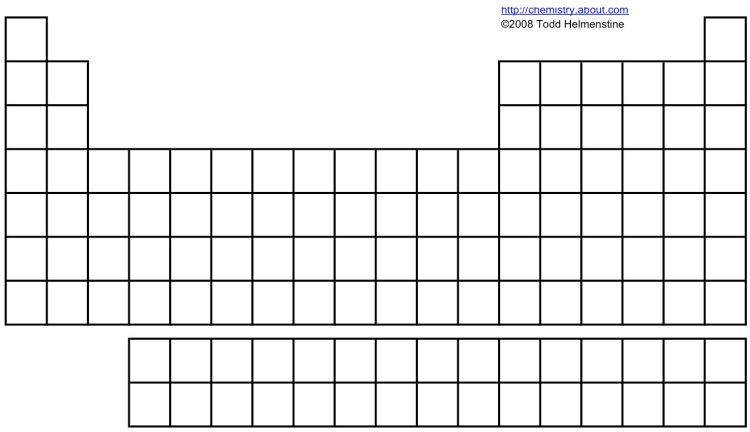
3. Draw the orbital diagrams for the following elements:
   example: For lithium: Li 

for nitrogen: 

   a. F

   b. Na

   c. S

   d. Mg
4. Remember that ions have a different number of electrons from the neutral atom.
5. How many electrons do the following ions have?
   a. Cu^{2+} b. Mn^{2+} c. P^{3-} d. Ba^{2+} e. Bi^{5+}
6. Draw the shapes of the s, p and d orbitals (look in your book)

7. On the periodic table below, label the alkali metals, alkali earth metals, transition metals, halogens, noble gases, lanthanides, actinides and metalloids. Also, which element has the highest ionization energy, atomic radius and electronegativity?