Periodic Trends Worksheet 2

1) What is atomic radius, ionization energy, and electronegativity?
2) Which of the following elements has the largest atomic radius: Li, O, C or F? ***Explain***.
3) Which of the following elements has the smallest atomic radius: Mg, Ca, Sr or Ba? ***Explain***.
4) Which of the following elements has the highest ionization energy:
   Li, O, C or F? ***Explain***.
5) Which of the following elements has the lowest ionization energy: Mg, Ca, Sr or Ba? ***Explain***.
6) Which of the following elements has the highest electronegativity:
   Li, O, C or F? ***Explain***.
7) Which of the following elements has the lowest electronegativity: Mg, Ca, Sr or Ba? ***Explain***.
8) Compare and contrast a cation and an anion. How does the size
9) Which of the following cations is least likely to form: Sr^{+2}, Al^{+3} or K^{+2}?
10) Which of the following anions is least likely to form: I^{-1}, Cl^{-1} or O^{-3}?
11) ***Explain*** which element is the most electronegative among C, N, O, Br and S.
12) ***Explain*** whether Fluorine or Bromine has a larger:
    (a) electronegativity, (b) atomic radius, and (c) ionization energy.
13) Put the following elements in order of increasing atomic radius: C, F, Be and Li.
14) Which is larger the atom Ca or the ion Ca^{+2}? ***Explain.***
15) What type of ion would an atom with high ionization energy form? ***Explain.***