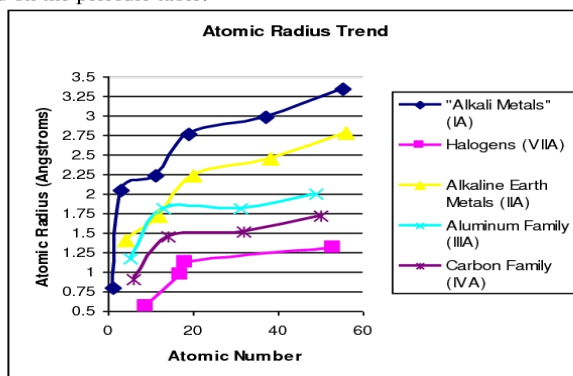
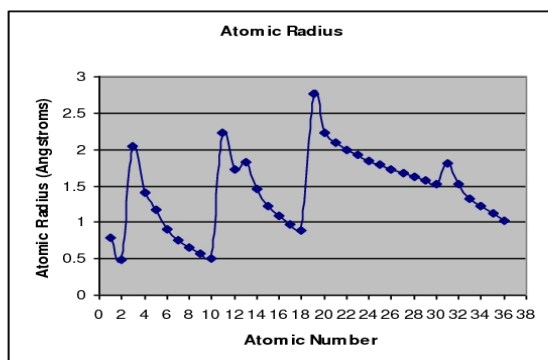


The following charts represent the Atomic Radii trends found on the periodic table.



Questions:

1. What is the general periodic trend for atomic radius?
2. What is the general group trend for atomic radius?
3. What makes the sodium atom different from the magnesium atom?
4. As you increase across the period, what happens to the number of electrons? Protons?
5. Calculate  $Z_{\text{eff}}$  for Sulfur and Chlorine
6. Explain why the Neon atom is the smallest atom in the 2<sup>nd</sup> energy level
7. Why is Gallium a bigger atom than Zinc? Use your  $Z_{\text{eff}}$  calculations to prove your answer.
8. Does  $Z_{\text{eff}}$  explain why the atomic radii increase as you progress down a column? Explain.
9. Explain why the atomic radii of Helium and Neon are so close when considering Neon has 1 more energy level.