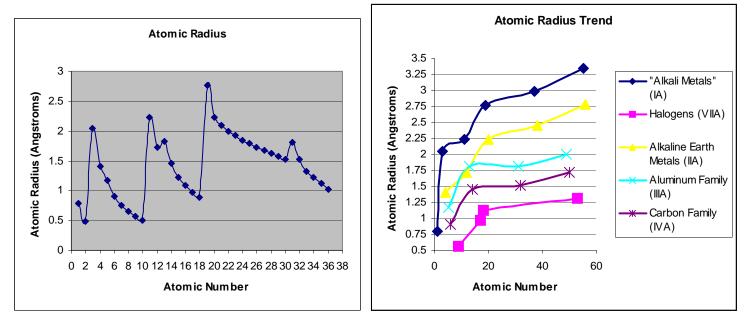
Chemistry: Chapter 12: Atomic Radius Worksheet

Name:



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<sub>eff</sub> for Sulfur and Chlorine
- 6. Explain why the Neon atom is the smallest atom in the  $2^{nd}$  energy level
- 7. Why is Gallium a bigger atom than Zinc? Use your Z<sub>eff</sub> calculations to prove your answer.
- 8. Does Z<sub>eff</sub> 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.