

1. Put the following groups of elements in order from smallest to largest atomic radius and explain why:

Co, Kr, Ge, Ca,
Why?

Kr - Ge - Co - Ca
Smallest Largest

I, Br, F, At
Why?

F - Br - I - At
Smallest Largest

B/c the Nucleus pulls harder on the electrons as they move across a period. ●●●●●

More energy levels are added to house more electrons as you go down a group!

2. Circle the atom in each pair that is the largest atomic size.

- a) Al or In b) At or Ba c) Br or Cl d) Na or Al e) O or F
 f) Mg or Ca g) S or Po h) Ti or K i) Bi or P j) Fe or Ca

3. Write the name of the group or section of the period table in which each of the following elements are located.

Titanium Transition metals

Plutonium Pare earth metals

Barium Alkaline earth metals

Argon Noble Gases

Iodine Halogen S

Sodium Alkali metals

4. What is the trend for metal reactivity in a group? What is the trend for nonmetal reactivity in a group?

more Reactive as you go DOWN a group!

more Reactive as you go UP a group

5. What is the name of the most reactive metal group? What is the name of the most reactive nonmetal group?

Alkali metals!

Halogens!

6. Circle the atom in each pair that is the most reactive.

- a) Cl or F b) Mg or Ne c) Li or Be d) S or Cl e) Rb or Na
 f) Mg or Ca g) S or Po h) Li or Na i) Ti or K j) Kr or Ar

Neither!

7. How do you identify the number of valence electrons in an element?

The Group #! (//)