

p174 52, 61, 62, 65, 69

(52) larger; atomic radius increases as you move down a group

(61) The ionic radius of a non metal is smaller than the atomic radius. Non-metals form ions by losing electrons, thus getting smaller.

(62) - The number of protons increases as you move left - to - right across the period.
- therefore, the positive charge in the nucleus increases
- this pulls the electrons closer to the nucleus resulting in a smaller radius.

(65) (a) negative - negative ions have a larger radius than their atom.

(b) A, B - atomic radius decreases as you move left to right through a period.

(c) B, A - ionic radius increases as you move down through a group.

(69) (a) As (b) N (c) Be