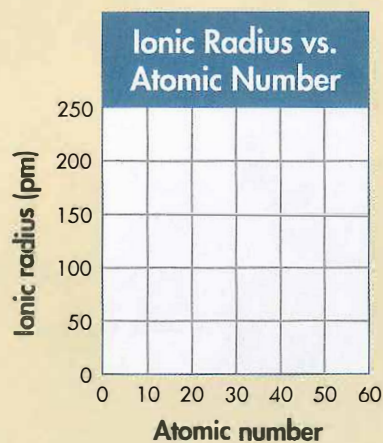


Quick Lab

Purpose To use a graph to identify period and group trends

Materials

- graph paper
- pencil



Periodic Trends in Ionic Radii

Procedure

Use the data presented in Figure 6.23 to plot ionic radius versus atomic number.

Analyze and Conclude

- 1. Compare** How does the size change when an atom forms a cation and when an atom forms an anion?
- 2. Describe** How do the ionic radii vary within a group of metals? How do they vary within a group of nonmetals?
- 3. Describe** What is the shape of a portion of the graph that corresponds to one period?
- 4. Compare and Contrast** Is the trend across a period similar or different for Periods 2, 3, 4, and 5?
- 5. Explain** Propose explanations for the trends you have described for ionic radii within groups and across periods.

Figure 6.23 Atomic and Ionic Radii

Atomic and ionic radii are an indication of the relative size of atoms and ions. The data listed are reported in picometers (pm).

