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The elements helium, neon, and xenon are located in group 18 (8A) in the periodic table.

- a. Explain why the atomic number increases from helium to neon to xenon.
- b. Explain why helium, neon, and xenon are located in different periods in the periodic table.
- c. Describe the chemical reactivity of helium, neon, and xenon **and** explain how the location of these elements in the periodic table relates to their chemical reactivity.