Mathematical Reflections 5

In this investigation, you learned how changing the dimensions of a rectangular box affects its volume and surface area. These questions will help you summarize what you have learned.

Think about your answers to these questions. Discuss your ideas with other students and your teacher. Then write a summary of your findings in your notebook.

1. Suppose you want to build a rectangular box with eight times the volume of a given rectangular box. How can you determine the possible dimensions for the new box? Are the two boxes similar? Explain.

2. Describe how the volume and surface area of a rectangular prism change as each of its dimensions is doubled, tripled, quadrupled, and so on.