Mathematical Reflections 4

In this investigation, you used ratios and proportions to solve a variety of problems. You found that most of those problems can be expressed in proportions such as $\frac{a}{b} = \frac{c}{x}$ or $\frac{a}{b} = \frac{x}{c}$. The next 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.** For each situation, write a problem that can be solved using a proportion. Then solve your problem.
 - **a.** The fraction of girls in grade seven is $\frac{3}{5}$.
 - **b.** Bolda Cola sells at 5 for \$3.
 - **c.** Sora rides her bike at a speed of 12 miles per hour.
 - **d.** A triangle is similar to another one with a scale factor of 1.5.
- **2.** Write four different proportions for the problem you created in part (c). Show that the answer to the problem is the same no matter which proportion you use.
- **3.** What procedures do you use to solve proportions such as those you wrote in Question 2?