Mathematical Reflections 3

In the problems of this investigation you studied ways to use multiplication and division of integers to answer questions about speed, time, distance, and direction of motion. You used the results of those calculations to develop algorithms for multiplying and dividing any two integers. The questions that follow should help you to summarize your findings.

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.** How do you find the product of two numbers when
 - **a.** both are positive?
 - **b.** one is positive and one is negative?
 - **c.** both are negative?
 - **d.** one is 0?
- 2. How do you find the quotient of two numbers when
 - **a.** both are positive?
 - **b.** one is positive and the other is negative?
 - **c.** both are negative?
 - **d.** the numerator is 0?
- **3.** Suppose three numbers are related by an equation in the form $a \times b = c$ where a, b, and c are not equal to 0. Write two equivalent number sentences using division.