Mathematical Reflections 2

In this investigation, you applied your ideas about integers to develop algorithms for calculating any sums and differences.

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

1. **a.** How can you decide if the sum of two numbers is positive, negative, or zero without actually calculating the sum?

   b. How can you decide if the difference of two numbers is positive, negative, or zero without actually calculating the difference?

2. **a.** What procedure(s) will find the sum $a + b$ of two numbers where a and b represent any integer?

   b. What procedure(s) will find the difference $a - b$ of two numbers where a and b represent any integer?

3. How can any difference $a - b$ of two numbers be restated as an equivalent addition statement?