Practice Run

1. Revise each of the false conjectures to make them true.

   a. The sum of the digits in a multiple of 9 will be 9.
   b. All prime numbers are odd.
   c. $x^2 \geq x$

Compare your answers.

1. Revise each of the false conjectures to make them true.

The following is a set of possible answers. Your new conjectures may be different.

   a. The sum of the digits in a multiple of 9 will be 9.
   The sum of the digits in a multiple of 9 will be divisible by 9.

   b. All prime numbers are odd.
   All prime numbers larger than 2 are odd.

   c. $x^2 \geq x$
   $x^2 \geq x$ if $x < -1$ or $x > 1$

You likely use inductive reasoning on a regular basis even though you may not realize it. Inductive reasoning is a good way to make generalized statements, or conjectures, about specific information. A conjecture can be shown to be false by finding a single counterexample. In the next lesson you will learn how to prove that a conjecture is true.