## Now

In Chapter 12, you will apply the big ideas listed below and reviewed in the Chapter Summary on page 839. You will also use the key vocabulary listed below.

## Big Ideas

1. **Analyze sequences**
2. **Find sums of series**
3. **Use recursive rules**

### KEY VOCABULARY

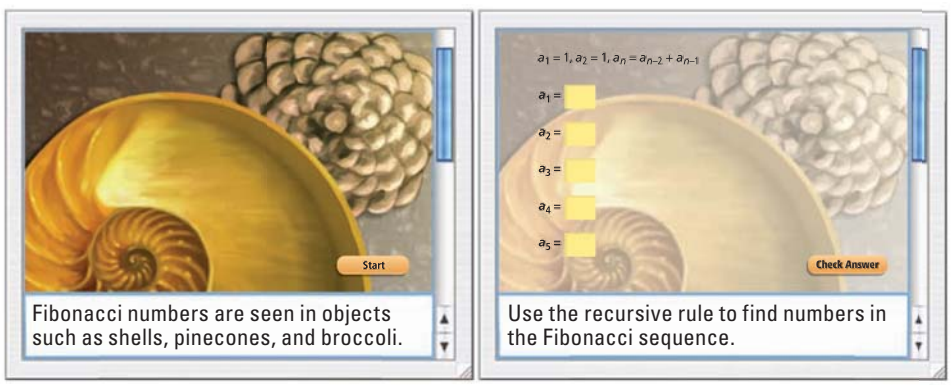
- sequence, *p. 794*
- terms of a sequence, *p. 794*
- series, *p. 796*
- summation notation, *p. 796*
- sigma notation, *p. 796*
- arithmetic sequence, *p. 802*
- common difference, *p. 802*
- arithmetic series, *p. 804*
- geometric sequence, *p. 810*
- common ratio, *p. 810*
- geometric series, *p. 812*
- partial sum, *p. 820*
- explicit rule, *p. 827*
- recursive rule, *p. 827*
- iteration, *p. 830*

## Why?

You can use sequences to describe patterns in the real world. For example, you can use the Fibonacci sequence to describe patterns in nature.

## Animated Algebra

The animation illustrated below for Example 3 on page 828 helps you answer this question: How can you generate Fibonacci numbers?




Animated Algebra at classzone.com

**Other animations for Chapter 12:** pages 805, 811, and 820