



Name \_\_\_\_\_ Date \_\_\_\_\_

## Sequences (pages 298–300)

A **sequence** is a list of numbers in a specific order. For example, the numbers 3, 6, 9, 12, 15 are a sequence. In this sequence, notice that 3 is added to each number. The next number in the sequence is  $15 + 3$ , or 18. There are also sequences in which you find the numbers by multiplying by the same number.

### EXAMPLES

**Find the next number in each sequence.**

**A** 13, 18, 23, 28, ...

*In this sequence, 5 is added to each number.  
The next number is  $28 + 5$ , or 33.*

**B** 5, 10, 20, 40, ...

*Each number in this sequence is multiplied by 2.  
The next number is  $40 \times 2$ , or 80.*

### Try These Together

**Find the next number in each sequence.**

1. 63, 59, 55, 51, ...

*HINT: What number is subtracted from each number in the sequence?*

2.  $2\frac{1}{2}$ , 5,  $7\frac{1}{2}$ , 10, ...

*HINT: What number is added to each number in the sequence?*

### PRACTICE

**Find the next two numbers in each sequence.**

3. 114, 57,  $28\frac{1}{2}$ , ...

4.  $\frac{1}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ , ...

5. 14,  $16\frac{1}{2}$ , 19, ...

6. 2, 16, 128, ...

7.  $\frac{1}{4}$ ,  $1\frac{1}{4}$ ,  $6\frac{1}{4}$ , ...

8. 31, 34, 37, ...

**Find the missing number in each sequence.**

9. 4, ?, 36, 108

10. 59, ?, 50,  $45\frac{1}{2}$

11.  $\frac{1}{4}$ ,  $2\frac{1}{2}$ , ?, 250

12.  $\frac{1}{8}$ ,  $\frac{5}{8}$ , ?,  $1\frac{5}{8}$

13. 5, 20, 35, ?

14. ?, 90, 62, 34



**15. Standardized Test Practice** Team A is playing Team B in a baseball game. By the end of the fifth inning, how many total outs has each team gotten? (There are 3 outs per inning per team.)

**A** 18

**B** 25

**C** 15

**D** 12

Answers: 1. 47 2.  $12\frac{2}{3}$  3.  $14\frac{3}{4}$ ,  $7\frac{8}{1}$  4.  $\frac{2}{1}$ , 1 5.  $21\frac{2}{1}$ , 24 6. 1024, 8192 7.  $31\frac{3}{4}$ ,  $156\frac{3}{4}$  8. 40, 43 9. 12 10.  $54\frac{2}{1}$ , 11. 25 12.  $1\frac{8}{8}$  13. 50 14. 118 15. C