

# 11-3 Skills Practice

## Geometric Sequences

Find the next two terms of each geometric sequence.

1.  $-1, -2, -4, \dots$

2.  $6, 3, \frac{3}{2}, \dots$

3.  $-5, -15, -45, \dots$

4.  $729, -243, 81, \dots$

5.  $1536, 384, 96, \dots$

6.  $64, 160, 400, \dots$

Find the first five terms of each geometric sequence described.

7.  $a_1 = 6, r = 2$

8.  $a_1 = -27, r = 3$

9.  $a_1 = -15, r = -1$

10.  $a_1 = 3, r = 4$

11.  $a_1 = 1, r = \frac{1}{2}$

12.  $a_1 = 216, r = -\frac{1}{3}$

Find the indicated term of each geometric sequence.

13.  $a_1 = 5, r = 2, n = 6$

14.  $a_1 = 18, r = 3, n = 6$

15.  $a_1 = -3, r = -2, n = 5$

16.  $a_1 = -20, r = -2, n = 9$

17.  $a_8$  for  $-12, -6, -3, \dots$

18.  $a_7$  for  $80, \frac{80}{3}, \frac{80}{9}, \dots$

Write an equation for the  $n$ th term of each geometric sequence.

19.  $3, 9, 27, \dots$

20.  $-1, -3, -9, \dots$

21.  $2, -6, 18, \dots$

22.  $5, 10, 20, \dots$

Find the geometric means in each sequence.

23.  $4, \underline{\quad}, \underline{\quad}, \underline{\quad}, 64$

24.  $1, \underline{\quad}, \underline{\quad}, \underline{\quad}, 81$