

## 10-7

## Skills Practice

$$a_n = a_1 r^{n-1}$$

## Geometric Sequences

Determine whether each sequence is geometric.

IF NOT, WHY NOT.  
IF YES, WHAT IS  $r$ ?

1. 9, 17, 25, 33, ...

2. 4, 12, 36, 108, ...

3. -320, -80, -20, -5, ...

4. -75, -60, -45, -30, ...

5. 64, -32, 16, -8, ...

6. 26.5, 21, 15.5, 10, ...

Find the next three terms in each geometric sequence.

7. 2, -4, 8, -16, ...

8. -2, -6, -18, -54, ...

9. -960, 480, -240, 120, ...

10. 7290, 2430, 810, 270, ...

11. -32, -16, -8, -4, ...

12. 6144, 1536, 384, 96, ...

Find the  $n$ th term of each geometric sequence.

13.  $a_1 = 2, n = 4, r = -2$

14.  $a_1 = 3, n = 5, r = 2$

15.  $a_1 = 6, n = 3, r = 8$

16.  $a_1 = -5, n = 4, r = 9$

17.  $a_1 = 10, n = 3, r = 12$

18.  $a_1 = 4, n = 4, r = -8$

ALL WORK ON  
LOOSE LEAF