

# Skills Practice Act. #63

## Recursion and Special Sequences

Find the first five terms of each sequence.

1.  $a_1 = 4$ ,  $a_{n+1} = a_n + 7$

2.  $a_1 = -2$ ,  $a_{n+1} = a_n + 3$

3.  $a_1 = 5$ ,  $a_{n+1} = 2a_n$

4.  $a_1 = -4$ ,  $a_{n+1} = 6 - a_n$

5.  $a_1 = 1$ ,  $a_{n+1} = a_n + n$

6.  $a_1 = -1$ ,  $a_{n+1} = n - a_n$

7.  $a_1 = -6$ ,  $a_{n+1} = a_n + n + 1$

8.  $a_1 = 8$ ,  $a_{n+1} = a_n - n - 2$

9.  $a_1 = -3$ ,  $a_{n+1} = 2a_n + 7$

10.  $a_1 = 4$ ,  $a_{n+1} = -2a_n - 5$

11.  $a_1 = 0$ ,  $a_2 = 1$ ,  $a_{n+1} = a_n + a_{n-1}$

12.  $a_1 = -1$ ,  $a_2 = -1$ ,  $a_{n+1} = a_n - a_{n-1}$

13.  $a_1 = 3$ ,  $a_2 = -5$ ,  $a_{n+1} = -4a_n + a_{n-1}$

14.  $a_1 = -3$ ,  $a_2 = 2$ ,  $a_{n+1} = a_{n-1} - a_n$