

8.3 Practice WS2

Determine if the sequence is geometric. If it is, find the common ratio, the term named in the problem, and the explicit formula.

1) 1, 2, 6, 24, ...

Find a_{12}

2) -3, -6, -12, -24, ...

Find a_9

Given a term in a geometric sequence and the common ratio find the term named in the problem and the explicit formula.

3) $a_1 = -4, r = 3$

Find a_{10}

4) $a_2 = -4, r = -2$

Find a_{11}

Given two terms in a geometric sequence find the term named in the problem and the explicit formula.

5) $a_6 = -972$ and $a_3 = -36$

Find a_{12}

Evaluate each geometric series described.

6) $\sum_{k=1}^{10} 3 \cdot (-3)^{k-1}$

7) $a_1 = -4, r = -4, n = 7$

Determine the number of terms n in each geometric series.

8) $a_1 = -1, r = 2, S_n = -127$