

Number:
Title:

Textbook Section:

1. Determine the common ratio, the 5th term, and the n^{th} term of the geometric sequence.

$$144, -12, 1, -\frac{1}{12}, \dots$$

2. The first term of a geometric sequence is 3, and the third term is $\frac{4}{3}$. Find the fifth term.

3. Find a formula for the n^{th} term of a geometric sequence with second term -40 and fifth term 0.04 .

The formula for the sum of the first n terms of a geometric series is:

4. Use a formula to find the sum of the (finite) geometric series.

$$8 + 4 + 1 + 2 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$$

5. Find the sum of the (finite) series. $1 + 3 + 9 + \dots + 2187$

If $-1 < r < 1$, we can

The sum of an infinite geometric series:

6. Find the sum of the infinite geometric series. $6 + 2 + \frac{2}{3} + \dots$

7. Use the formula for the sum of an infinite geometric series to express $0.373737\dots$ as a fraction.