

Find the common ratio for the geometric series and write the rule for the general term

1) $4, 10, 25, 62.5, 156.25, \dots$

Find the common ratio for the geometric series and write the rule for the general term

2) 100, -60, 36, -21.6, 12.96,

Write the first 4 terms of the geometric sequence and then write the rule for the general rule

$$3. \quad a_1 = 12 \quad r = -2$$

Write the first 4 terms of the geometric sequence and then write the rule for the general rule

$$4. \quad a_{10} = 5 \quad r = -\frac{1}{2}$$

Write the first 4 terms of the geometric sequence

5. $a_n = 10(-3)^{n-1}$

Write the first 4 terms of the geometric sequence

6.
$$a_n = 50 \left(\frac{1}{2} \right)^{n-1}$$

Given the recursive rule, write the first 5 terms of the geometric sequence and the general term

1. $a_1 = 5$ $a_{k+1} = 2a_k$

Given the recursive rule, write the first 5 terms of the geometric sequence and the general term

$$2. \quad a_1 = 300 \quad a_{k+1} = -\frac{1}{3}a_k$$

Find the given term for the geometric sequence

$$3. \quad a_1=7 \quad r=2 \quad n=12$$

Find the given term for the geometric sequence

$$4. \quad a_3 = \frac{9}{8} \quad a_6 = \frac{-243}{512} \quad n=8$$

Find the sum of each of the following geometric series.

1.
$$\sum_{n=1}^{20} 4 \left(\frac{2}{3} \right)^{n-1}$$

Find the sum of each of the following geometric series.

2.
$$\sum_{n=0}^{12} 2 \left(\frac{5}{2} \right)^n$$

Find the sum of each of the following geometric series.

3. $\sum_{n=1}^{10} 3(2)^n$

Find the sum of each of the following geometric series.

3.
$$\sum_{n=1}^{\infty} 8 \left(\frac{2}{5} \right)^{n-1}$$

Find the sum of each of the following geometric series.

4.
$$\sum_{n=0}^{\infty} 2 \left(\frac{8}{7} \right)^n$$

Find the sum of each of the following geometric series.

5.
$$\sum_{n=0}^{\infty} 6 \left(\frac{1}{2} \right)^{n+2}$$

Find the rational function/fraction for the decimal

6. $\overline{.12}$