

More Practice - Sequences and Series SS8: Geometric Series

Find the value of the sum:

1. $2 + 6 + 18 + 54 + 162 + 486 + 1458$

2. $3 + 12 + 48 + \dots + 201326592$

3. $1 + .25 + .0625 + \dots$

4. $4 + 6 + 9 + 13.5 + 20.25 + \dots$

5. $2 + 1 + 0.5 + 0.25 + \dots + 0.015625$

6. $\frac{3}{2} + \frac{9}{8} + \frac{27}{32} + \dots$

7.
$$\sum_{n=1}^{\infty} 4 \cdot \left(\frac{3}{5}\right)^{n-1}$$

8.
$$\sum_{n=1}^{17} 6 \cdot 1.25^{n-1}$$

9.
$$\sum_{n=1}^{24} 7 \cdot 2^{n-1}$$

10.
$$\sum_{n=1}^{\infty} \frac{1}{5} \cdot (3)^{n-1}$$