

Sequence 5 WS: Geometric Series**Evaluate the related series of each sequence.**

1) $-3, 15, -75, 375$

2) $-3, -15, -75, -375$

Evaluate each geometric series described.

3) $a_1 = 1, r = -2, n = 8$

4) $a_1 = 1, r = 2, n = 9$

5) $a_1 = 1, r = -2, n = 10$

6) $a_1 = 2, r = -3, n = 9$

7) $a_1 = 4, a_n = 256, r = 2$

8) $a_1 = -2, a_n = -128, r = 2$

9) $a_1 = 4, a_n = 312500, r = 5$

10) $a_1 = -4, a_n = -16384, r = -4$

$$11) \ a_1 = 4, \ a_{10} = -78732, \ r = -3$$

$$12) \ a_1 = -4, \ a_7 = -62500, \ r = 5$$

$$13) \ a_1 = 4, \ a_9 = 262144, \ r = 4$$

$$14) \ a_1 = 3, \ a_7 = 12288, \ r = 4$$

$$15) \ 3 + 9 + 27 + 81..., \ n = 7$$

$$16) \ 2 - 6 + 18 - 54..., \ n = 8$$

$$17) \ 3 - 12 + 48 - 192..., \ n = 9$$

$$18) \ 2 + 6 + 18 + 54..., \ n = 9$$

$$19) \ \sum_{n=1}^{10} 3^{n-1}$$

$$20) \ \sum_{k=1}^9 (-2)^{k-1}$$

$$21) \ \sum_{i=1}^7 3 \cdot 6^{i-1}$$

$$22) \ \sum_{i=1}^{10} -4^{i-1}$$