

General Sequences and Series

Date _____ Period _____

Find the first four terms in each sequence.

1) $a_n = -4 \cdot 5^{n-1}$

2) $a_n = 3 \cdot (-4)^{n-1}$

3) $a_n = -39 + 4n$

4) $a_n = 36 - 8n$

5) $a_n = -\frac{7}{2} + \frac{3}{2}n$

Write the recursive formula for each sequence.

6) 17, 19, 21, 23, 25, ...

7) -1, -2, -6, -24, -120, ...

8) 2, -8, 32, -128, 512, ...

9) -3, 5, 13, 21, 29, ...

10) 1, -3, 9, -27, 81, ...

Evaluate each series.

11) $\sum_{k=1}^6 k(k-2)$

12) $\sum_{m=1}^7 3^m$

13) $\sum_{m=1}^7 m(m+2)$

14) $\sum_{n=1}^7 (400 - n)$

15) $\sum_{m=1}^7 (40 - m)$