

## General Sequences and Series

Block: \_\_\_\_\_ Mark Out Of 28 \_\_\_\_\_

**Find the first four terms in each sequence.**

1)  $a_n = -2.5 \cdot (-2)^{n-1}$

2)  $a_n = 9.8 + 1.8n$

3)  $a_n = a_{n-1} \cdot -6$   
 $a_1 = -3$

4)  $a_n = a_{n-1} - 2$   
 $a_1 = -29$

**Write the recursive formula for each sequence.**

5)  $-0.25, 1, -4, 16, -64, \dots$

6)  $-2, 0, 3, 7, 12, \dots$

**Write the explicit formula for each sequence.**

7) 0, 3, 8, 15, 24, ...

8) 31, 131, 231, 331, 431, ...

**Evaluate each series.**

9)  $\sum_{n=1}^7 (4n^2 - 1)$

10)  $\sum_{n=1}^6 n(n + 1)$

**Rewrite each series using sigma notation.**

11)  $1 + 4 + 9 + 16$

12)  $4 + 8 + 12 + 16 + 20 + 24$

13)  $2 + 4 + 8 + 16 + 32$

14)  $101 + 102 + 103 + 104 + 105$