

Sequences and Summation Notation (10.1)**Sequences****Finite Sequences –****Infinite Sequences –** $n -$ $a_n -$ **Writing Terms of a Sequence from the General Term:** Find the first four terms of the sequence.

1) $a_n = 3 + 4(-1)^n$

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

Using a Recursion Formula: Find the first four terms of the sequence.

3) $a_1 = -4$ and $a_n = 2a_{n-1} - 3$ for $n \geq 2$

4) $a_1 = 5$ and $a_n = 3a_{n-1} - 1$ for $n \geq 2$

Summation Notation

Finite Series –

Infinite Series –

Summation Notation (Sigma Notation) –

Using Summation Notation: Find each indicated sum.

5) $\sum_{k=1}^4 (2k^2 - 1)$

6) $\sum_{i=0}^4 \frac{(-1)^{i+1}}{(i+1)!}$