

Advanced Math

9a-1

Sequences and Summation Notation

Discrete function -

Write the first five terms of the sequence. (pg 716)

1) $a_n = 2n + 1$

Recursively Defined Function -

Write the first five terms of the sequence defined recursively.

25) $a_1 = 15, a_{k+1} = a_k - 4$

Write an expression for the *most apparent* n th term of the sequence (assume n begins at 1).

47) $1, 4, 7, 10, 13, \dots$

59) $1, -1, 1, -1, 1, \dots$

Factorial - $5! =$
 $x! =$
 $0! =$

Simplify the ratio factorials.

$$41) \frac{10!}{8!}$$

Summation and Sigma notation -

$$\sum_{n=x}^y a_n$$

Find the sum.

$$65) \sum_{i=1}^5 (2i+1)$$

Use Sigma notation to write the sum.

$$81) \frac{1}{3(1)} + \frac{1}{3(2)} + \frac{1}{3(3)} + \cdots + \frac{1}{3(9)}$$

Assignment:

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2-22 every 4th,

26, 28,

40-60 even,

66-80 every 4th,

82-90 even.