$$\sum_{k=1}^{15} (7k - 4) = 780$$

Find the 8th term in the geometric sequence if $a_4 = 8$ and $a_7 = 64$.

128

Unit 7 Scavenger Hunt

Find the nth term of a geometric sequence if $a_2 = 1/30$ and $a_8 = 1/468,750$.

$a_n = \pm \frac{1}{6} \cdot \left(\pm \frac{1}{5}\right)^{n-1}$

Unit 7 Scavenger Hunt

Find a_n for the arithmetic sequence if $a_1 = 21$ and d = -3.

$a_n = -3n + 24$

Unit 7 Scavenger Hunt

Find the 4th term in the expansion of: $(x-4)^6$

$-1280x^{3}$

Unit 7 Scavenger Hunt

Find:
$$\frac{(n+2)!}{n!}$$

$n^2 + 3n + 2$

Unit 7 Scavenger Hunt

What is the 5th term in the expansion of $(2x-3)^8$?

90, $720x^4$

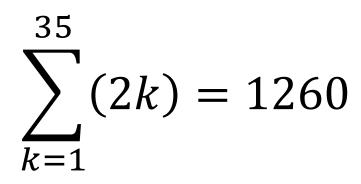
Unit 7 Scavenger Hunt

Find a_n for the arithmetic sequence if $a_3 = 3$ and $a_{12} = 39$.

 $a_n = 4n - 9$

Write the series using summation notation and find the sum of the series:

2+4+6+...+70



Find the sum of the coefficients of: $(3p - 5q)^3$

-8

Unit 7 Scavenger Hunt

Find the 10th term in a geometric sequence if $a_3 = 8/9$ and $a_6 = 64/243$.

1024 19,683

Unit 7 Scavenger Hunt

Find the nth term of a geometric sequence if $a_3 = 54$ and $a_{10} = 118,098$.

$a_n = 6 \cdot 3^{n-1}$

Unit 7 Scavenger Hunt

Find a_n for the arithmetic sequence if $a_1 = -6$ and d = 5.

$a_n = 5n - 11$

Unit 7 Scavenger Hunt

Write the series using summation notation and find the sum of the series:

 $111 + 108 + 105 + \ldots + 27$

$\sum_{k=1}^{29} (-3k + 114) = 2001$

Unit 7 Scavenger Hunt

Find the 2^{nd} term in the expansion of: $(x + 7)^6$

 $42x^{5}$

Find: $\binom{n}{2} + \binom{n+2}{2}$

$n^2 + n + 1$

Unit7 Scavenger Hunt

What is the 8th term in the expansion of $(4x - y)^9$?

 $-576x^2y^7$

Find a_n for the arithmetic sequence if $a_4 = 4$ and $a_{11} = 0.5$.

$a_n = -0.5n + 6$

Unit 7 Scavenger Hunt

Find the sum of the coefficients of: $(9x - 10y)^6$

1

Unit 7 Scavenger Hunt

Write the series using summation notation and find the sum of the series:

3+10+17+...+101