Sigma Notation & Infinite Geometric Series · 1

Evaluate the sum of 3k - 2 for k = 3 to 6.

$$\sum_{k=3}^{6} (3k - 2)$$

Sigma Notation & Infinite Geometric Series · 2

Evaluate the sum of k^2 - 5 for k = 1 to 3.

$$\sum_{k=1}^{3} (k^2 - 5)$$

Sigma Notation & Infinite Geometric Series · 3

What is the common ratio of the geometric series 2 - 2 + 2 - ...?

Sigma Notation & Infinite Geometric Series · 4

Does the infinite geometric series 9 + 6 + 4 + ... converge or diverge?

Sigma Notation & Infinite Geometric Series · 5

Evaluate the sum of k - 1 for k = 4 to 8.

$$\sum_{k=4}^{8} (k - 1)$$

Sigma Notation & Infinite Geometric Series · 6

How many terms are added in the sum of 4k + 1 for k = 1 to 15?

$$\sum_{k=1}^{15} (4k + 1)$$

Sigma Notation & Infinite Geometric Series · 7

Evaluate the sum of 2k - 3 for k = 4 to 7.

$$\sum_{k=4}^{7} (2k - 3)$$

Sigma Notation & Infinite Geometric Series · 8

Evaluate the sum of k^2 + 3 for k = 1 to 3.

$$\sum_{k=1}^{3} (k^2 + 3)$$

Sigma Notation & Infinite Geometric Series · 2

ANSWER

-1

Sigma Notation & Infinite Geometric Series · 1

ANSWER

46

Sigma Notation & Infinite Geometric Series · 4

ANSWER

converges

Sigma Notation & Infinite Geometric Series · 3

ANSWER

-1

Sigma Notation & Infinite Geometric Series · 6

ANSWER

15

Sigma Notation & Infinite Geometric Series · 5

ANSWER

25

Sigma Notation & Infinite Geometric Series · 8

ANSWER

23

Sigma Notation & Infinite Geometric Series · 7

ANSWER

32

Evaluate the sum of 3k - 1 for k = 0 to 4.

$$\sum_{k=0}^{4} (3k - 1)$$

What is the common ratio of the geometric series 12 + 30 + 75 + ...?

Does the infinite geometric series 100 + 40 + 16 + ... converge or diverge?

Evaluate the sum of 3k + 4 for k = 0 to 4.

$$\sum_{k=0}^{4} (3k + 4)$$

How many terms are added in the sum of 3k + 4 for k = 1 to 23?

$$\sum_{k=1}^{23} (3k + 4)$$

Evaluate the sum of 2k + 4 for k = 4 to 7.

$$\sum_{k=4}^{7} (2k + 4)$$

Evaluate the sum of k^2 - 2 for k = 1 to 3.

$$\sum_{k=1}^{3} (k^2 - 2)$$

Evaluate the sum of k^2 - 3k - 1 for k = 3 to 6.

$$\sum_{k=3}^{6} (k^2 - 3k - 1)$$

Sigma Notation & Infinite Geometric Series · 10

ANSWER

$\frac{5}{2}$

Sigma Notation & Infinite Geometric Series · 9

ANSWER

25

Sigma Notation & Infinite Geometric Series · 12

ANSWER

50

Sigma Notation & Infinite Geometric Series · 11

ANSWER

converges

Sigma Notation & Infinite Geometric Series · 14

ANSWER

60

Sigma Notation & Infinite Geometric Series · 13

ANSWER

23

Sigma Notation & Infinite Geometric Series · 16

ANSWER

28

Sigma Notation & Infinite Geometric Series · 15

ANSWER

8

Does the infinite geometric series $27 + 9 + 3 + \ldots$ converge or diverge?

Find the sum of the infinite geometric series $11 \cdot (\frac{3}{4})^{k-1}$ for $k = 1$ to ∞.

$$\sum_{k=1}^{\infty} 11 \cdot (\frac{3}{4})_{k-1}$$

Evaluate the sum of $5k - 6$ for $k = 4$ to 8.

$$\sum_{k=4}^{8} (5k - 6)$$

Write the repeating decimal 0.777... as a fraction. (It is the infinite geometric series $\frac{7}{10} + \frac{7}{100} + \frac{7}{1000} + \ldots$)

What is the common ratio of the geometric series $64 - 16 + 4 - \ldots$?

Evaluate the sum of $3 \cdot 3^k$ for $k = 0$ to 5.

$$\sum_{k=0}^{5} 3 \cdot 3^k$$

Evaluate the sum of $k^2 - k - 3$ for $k = 0$ to 3.

$$\sum_{k=0}^{3} (k^2 - k - 3)$$

Evaluate the sum of $2k + 5$ for $k = 2$ to 6.

$$\sum_{k=2}^{6} (2k + 5)$$

Sigma Notation & Infinite Geometric Series · 18

ANSWER

44

Sigma Notation & Infinite Geometric Series · 17

ANSWER

converges

Sigma Notation & Infinite Geometric Series · 20

ANSWER

$$\frac{7}{9}$$

Sigma Notation & Infinite Geometric Series · 19

ANSWER

120

Sigma Notation & Infinite Geometric Series · 22

ANSWER

1092

Sigma Notation & Infinite Geometric Series · 21

ANSWER

$$\frac{1}{-4}$$

Sigma Notation & Infinite Geometric Series · 24

ANSWER

65

Sigma Notation & Infinite Geometric Series · 23

ANSWER

-4