

SATPREP

Assignment : Series with Sigma Notation

Evaluate each arithmetic series described.

$$1) \sum_{n=1}^{15} (10n - 12)$$

$$2) \sum_{n=1}^6 (4n - 11)$$

$$3) \sum_{m=2}^{14} (2m - 7)$$

$$4) \sum_{n=2}^{16} (17 - 9n)$$

Evaluate each geometric series described.

$$5) \sum_{k=1}^9 -2 \cdot 3^{k-1}$$

$$6) \sum_{k=1}^8 2^{k-1}$$

Determine the number of terms n in each arithmetic series.

$$7) \sum_{m=1}^n (7m + 3) = 5860$$

$$8) \sum_{m=1}^n (4 - 9m) = -767$$

Determine the number of terms n in each geometric series.

$$9) \sum_{i=1}^n 2 \cdot \left(-\frac{2}{3}\right)^{i-1} = \frac{266}{243}$$

$$10) \sum_{i=1}^n -4 \cdot 6^{i-1} = -6220$$

Answers to Assignment : Series with Sigma Notation

1) 1020

5) -19682

9) 6

2) 18

6) 255

10) 5

3) 117

7) 40

4) -960

8) 13

