

Series (Assignment 55)

Calculate each series.

1.  $\sum_{n=1}^{17} (3n - 2)$

2.  $\sum_{n=1}^{200} -n$

3.  $\sum_{n=1}^{54} (n + 1)$

4.  $\sum_{n=0}^{54} (4 - n)$

5.  $\sum_{n=1}^{30} (6.72n + 0.3)$

6.  $\sum_{n=11}^{96} n$

7.  $5 + 9 + 13 + \dots + 65$

8.  $3 - 2 - 7 - \dots - 97$

9.  $-4 - 1 + 2 + \dots + 59$

10.  $18 + 19 + 20 + \dots + 134$

Calculate.

$$11. \sum_{n=1}^{20} 1$$

$$12. \sum_{n=1}^{20} n$$

$$13. \sum_{n=1}^{20} n^2$$

First rewrite each of the two series as a combination of the three series above, then calculate.

$$14. \sum_{n=1}^{20} (2n^2 - 3)$$

$$15. \sum_{n=1}^{20} (3 - 4n + n^2)$$

Calculate.

$$16. \sum_{n=1}^{31} 1$$

$$17. \sum_{n=1}^{31} n$$

$$18. \sum_{n=1}^{31} n^2$$

First rewrite each of the two series as a combination of the three series above, then calculate.

$$19. \sum_{n=1}^{31} (-n^2 + 5n)$$

$$20. \sum_{n=1}^{31} (n - 9)(n + 1)$$