

## ACTIVITY 1.2

### Sigma Notation for Summation

- (1) Calculate the following sums.

(a)

$$\sum_{k=1}^{10} (3k + 5)$$

(b)

$$\sum_{k=1}^{10} \frac{1}{2} (3k^2 - k)$$

(c)

$$\sum_{m=1}^{10} \sum_{n=1}^{10} (3m + 5n)$$

(d)

$$\sum_{m=1}^{10} \sum_{n=1}^{10} (3mn + 5)$$

- (2) Write down the sigma notation for the following sums.

(a)  $1 + 3 + 6 + 10 + 15 + \dots + 171$

(b)  $9 + 36 + 81 + 144 + \dots + 3249$

(c)  $1 + 5 + 13 + 25 + \dots + 761$