


$$\text{sum} = ((a1 + a_n)) * n / 2 \quad \textcircled{1}$$

$$(a1 + a_n) * (n/2) \quad \text{or} \quad ((a1 + a_n) / 2) * n$$

for even n

Examples :

1 2 3 4 5 6


2 5 8 11


for odd n

Examples :

1 2 3 4 5


3 6 9 12 15


$$a_n = a1 + (n-1) * d \quad \textcircled{2}$$

Example :

4 6 8 10 12

$$a1 = 4$$

$$a2 = 4 + 2$$

$$a3 = 4 + 2 * 2$$

$$a4 = 4 + 2 * 3$$

⋮

$$a_n = a1 + (n-1) * d$$

$$\text{sum} = ((2a1 + (n-1) * d) * n) / 2 \quad \textcircled{3}$$