

$$\rightarrow \sum_{i=1}^n (2i-1)$$

$$\sum_{i=1}^n i = \sum_{i=1}^n (2i-1) + \sum_{i=1}^n (1-i)$$

$$\frac{n(n+1)}{2} = \sum_{i=1}^n (2i-1) + n - \frac{n(n+1)}{2}$$

$$\rightarrow \sum_{i=1}^n (2i-1) = n(n+1) - n = n^2$$