

$$n! = \prod_{i=1}^n i \tag{1}$$

$$f(n) = f(n-1) + f(n-2) \tag{2}$$

$$\begin{aligned} \sum_{k=1}^n k &= 1 + 2 + \cdots + n \\ &= \frac{n(n+1)}{2} \end{aligned} \tag{3}$$