

1.1 函數與圖形

習題解答 1.1.2.

依題意

$$a_n = n \Rightarrow S_n = \sum_{k=1}^n k \quad (= \frac{n(n+1)}{2})$$

$$a_n = n^2 \Rightarrow S_n = \sum_{k=1}^n k^2 \quad (= \frac{n(n+1)(2n+1)}{6})$$

$$a_n = (-1)^n \Rightarrow S_n = \sum_{k=1}^n (-1)^k \quad (S_n = -1, n \text{ 是奇數}; S_n = 0, n \text{ 是偶數})$$

$$a_n = \frac{1}{n} \Rightarrow S_n = \sum_{k=1}^n \frac{1}{k}$$