

$$\begin{aligned} \text{B4208 a)} \quad a_n &= 6 + (19)2 \\ &= 6 + 38 \\ &= 44 \end{aligned}$$

$$a_1 = 6 \quad a_n = 44$$

$$\begin{aligned} S_n = \Sigma &= n \left(\frac{a_1 + a_n}{2} \right) \\ &= 20 \left(\frac{6 + 44}{2} \right) \\ &= 10 \cdot 50 \\ &= 500 \end{aligned}$$

$$\text{b)} \quad S_n = n \left(\frac{a_1 + a_n}{2} \right)$$

$$a_n = a_1 + (n-1)d$$

$$= 36 + (19)(-3)$$

$$= 36 - 57$$

$$= -21$$

$$S_n = 20 \left(\frac{36 - 21}{2} \right)$$

$$= 20 \left(\frac{15}{2} \right)$$

$$S_n = 150$$