

Subject:

Year:

Month:

Day:

$$(1) \quad (الف) \quad t_1 = 2 \quad t_2 = 11 \quad t_3 = 24 \quad t_4 = 35 \quad t_5 = 46 \quad (1)$$

$$(ب) \quad t_1 = \frac{2}{a} \quad t_2 = \frac{11}{a} \quad t_3 = 1 \quad t_4 = \frac{9}{a} \quad t_5 = \frac{11}{a}$$

$$(2) \quad (الف) \quad t_2 = \frac{(-1)}{15\sqrt{13+25}} \Rightarrow t_1 r = -\frac{1}{r} \quad (2)$$

$$(ب) \quad t_2 = 24 - \left[\frac{11}{\frac{2}{a}} \right] = 22$$

$$(3) \quad (الف) \quad t_n = 2n - 10 \Rightarrow 2n - 10 = 0 \quad 2n = 10 \quad n = 5 \quad \frac{5}{-4 \quad 0 \quad +} \quad (3)$$

$$\text{جد } 2 \Rightarrow 2 \cdot 5 + 10 = 20$$

$$(ب) \quad t_n = n^2 - 1(n + 10) \Rightarrow (n - 10)(n - 11) \quad \frac{11}{+ \quad 0 \quad - \quad 0 \quad +} \quad 11 - 10 + 1 = 2 \text{ جد}$$

$$(4) \quad (الف) \quad t_n = 2n - 14 \quad 2n = 14 \quad n = 7 \quad \frac{7}{- \quad 0 \quad +} \quad 7 - 1 + 1 = 7 \text{ جد} \quad (4)$$

$$(ب) \quad t_n = n^2 - 1(n + 14) \Rightarrow (n - 14)(n - 15) \quad \frac{15}{+ \quad 0 \quad - \quad 0 \quad +} \quad 15 - 14 + 1 = 2 \text{ جد}$$

$$(5) \quad t_4 = 35 \quad t_9 = 22 \quad \frac{14}{a} = 2 \Rightarrow \frac{14}{a} = 2 \Rightarrow a = 7 \quad t_4 = 2 \cdot 4^2 - (b) = 35 \quad (5)$$

$$(6) \quad (الف) \quad t_n = n^2 - 2n + 2 \quad t_2 = 9 - 12 + 2 = -1 \rightarrow \text{کمترین} \quad \frac{-b}{2a} = \frac{-2}{2} = -1 \quad (6)$$

$$(ب) \quad n^2 + 2n + 1 \Rightarrow \frac{2}{2} = -1 \quad -1 - 1 + 1 = -1 \rightarrow \text{کمترین}$$

$$a) 0 \rightarrow \min$$

$$(7) \quad t_n = \frac{2}{a} - 2n - 10 = -10 \Rightarrow \frac{2}{a} = 10 \Rightarrow a = \frac{1}{5} \quad \begin{cases} t_1 = 2 = \frac{2}{a} + b + c = -1 \\ t_2 = 11 = \frac{2}{a} + 2b + c = -1 \end{cases} \quad (7)$$

$$a + b + c = -1$$

$$-2 + c = -1$$

$$c = 1$$

$$t_{10} = 10 - 20 + 1 = -9$$

$$2a + b = -1$$

$$2 + b = -1$$

$$b = -3$$

Subject:

Year:

Month:

Day:

$$t_n = -49 - (9 \wedge 9 \wedge 2)$$

$$\begin{array}{c} +9 \\ +9 \\ +9 \end{array}$$

$$t_n = 2n - n = V \Rightarrow \text{مجموعه}$$

$$\begin{array}{l} 2a = 8 \\ a = 4 \end{array}$$

$$\begin{array}{l} 2 - 1 + c = -4 \\ c = -5 \end{array}$$

$$\begin{cases} t_1 = 1 \rightarrow a + b + c = -4 \\ t_2 = 2 \rightarrow 2a + 2b + c = -8 \end{cases}$$

(1)

$$\begin{array}{l} 2a + b = a \\ 4 + b = a \\ b = -1 \end{array}$$

$$a + 1 \leq a + 1 \quad a \geq 1$$

$$a = [1, 9 + \infty)$$

(9)

$$\text{الف) } \left[\frac{100}{10} \right] = 10$$

(10)

$$\text{ب) } \left[\frac{100}{10} \right] = 10$$

$$\text{ج) } \left[\frac{100}{10} \right] = 10$$

$$\text{د) } n(A \cup B) = n(A) + n(B) - n(A \cap B) \Rightarrow 10 + 10 - 4 = 16$$