

$t_{n+2} = n^2 - 9n + 17 \geq n+1 \Rightarrow t_{n+2} \geq t_{n+1}$

ب) $t_{k+1} + k+1 \xrightarrow{\text{induction}} t_{k+1} + k+1$

$t_{n,i} = -K, -V, -\Lambda, -V, -K, \dots$ $t_{1,2}, \dots, t_{n+1,2} \rightarrow K$
 $-a, -p, -1, +1, +p$
 $\alpha = +p$
 $\hookrightarrow \alpha = 1$
 $t_n = n^p + b n + 1 \xrightarrow{n \geq 1} t_{1,2}$

$$t_{n_2} n_1 + b n + 1 \xrightarrow{n_2} t_{12} 1 + b + 1 = -r_2$$

$$b = -9$$

$$n^2 + bn + c \Rightarrow t_{n,2} - k + d_2 = c \rightarrow t_{n,2} = n^2 - 4n + 1$$

$t_n = 2^{-4}, -1, \wedge, 2, 1, \dots$
 $+1 \quad +2 \quad +9 \quad +13$
 $+7 \quad +10 = +17 \quad +17$
 $\rightarrow a = 17$

$$Y_n^r + bn + c$$

$$t_{n-1}^p + b_{n-1} - V \xrightarrow{n-1} \frac{r + b - V_2 - q}{b_2 - 1}$$

$$\left\{ \begin{array}{l} \text{Enz}^{\text{P}} - n - V \end{array} \right\}$$

$$t_{0.2} = 4.12 - V_{2C}$$

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$$(n+1) \nmid n+1 \Rightarrow n \in [r, +\infty)$$

$$\left\{ \frac{109}{3} \right\}^{(23)} \text{ (اف)}$$

2) $\left[\frac{1}{10} \right] = 0$

ج) $\left[\frac{100}{5} \right]_2 = 20$

$$)) Y_0 + 33 - 42 \overline{KV} \}$$

الف) $t_n = 3n^2 - 1 \Rightarrow$

$1, 2, 5, 10 \Rightarrow 1, 11, 24, 47, 74$

ب) $t_n = \frac{n+1}{n+2} \Rightarrow t_1 = \frac{2}{3}, t_2 = \frac{3}{4}, t_3 = \frac{4}{5}, t_4 = \frac{5}{6}, t_5 = \frac{6}{7}$

الف) $t_n = \frac{(-1)^n}{\sqrt{n+1}} \Rightarrow n=13 \Rightarrow \frac{-1}{\sqrt{14}} = -\frac{1}{\sqrt{14}}$

ب) $t_n = n - \left\lceil \frac{n}{2} \right\rceil \Rightarrow n=13 \Rightarrow 13 - \left\lceil \frac{13}{2} \right\rceil = 13 - 7 = 6$

الف) $t_n = 2n - 10 \Rightarrow 2n - 10 < 0 \Rightarrow 2n < 10 \Rightarrow n < 5 \Rightarrow 1, 2, 3, 4 \Rightarrow 2, 4$

ب) $t_n = n^2 - 14n + 40 \Rightarrow n^2 - 14n + 40 < 0 \Rightarrow (n-4)(n-10) < 0 \Rightarrow 4 < n < 10 \Rightarrow 5, 6, 7, 8, 9 \Rightarrow 2, 4, 6, 8, 10$

الف) $t_n = 2n - 14 \Rightarrow 2n - 14 < 0 \Rightarrow 2n < 14 \Rightarrow n < 7 \Rightarrow 1, 2, 3, 4, 5, 6 \Rightarrow 2, 4, 6, 8, 10, 12$

ب) $t_n = n^2 - 14n + 24 \Rightarrow n^2 - 14n + 24 < 0 \Rightarrow (n-2)(n-12) < 0 \Rightarrow 2 < n < 12 \Rightarrow 3, 4, 5, 6, 7, 8, 9, 10, 11 \Rightarrow 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22$

$\begin{cases} t_p = a + rd = 2 \\ t_q = a + \Lambda d = 11 \end{cases} \Rightarrow \begin{cases} ad = 21 - 11 = 10 \\ \Lambda d = 11 - 2 = 9 \end{cases} \Rightarrow \begin{cases} a = 2 \\ d = 5 \end{cases} \Rightarrow t_p = a + rd = 2 + 4 = 6$

$a = 2$