

$$n=1 \rightarrow 3-1=2$$

$$n=4 \rightarrow 41-1=40$$

(الف)

(1)

$$n=2 \rightarrow 12-1=11$$

$$n=5 \rightarrow 75-1=74$$

$$2, 11, 40, 74, \dots$$

$$n=3 \rightarrow 27-1=26$$

$$n=1 \rightarrow \frac{3}{8}$$

$$n=4 \rightarrow \frac{9}{8}$$

(ب)

$$n=2 \rightarrow \frac{9}{5}$$

$$n=5 \rightarrow \frac{11}{9}$$

$$\frac{3}{8}, \frac{9}{5}, 1, \frac{9}{8}, \frac{11}{9}, \dots$$

$$n=3 \rightarrow \frac{27}{27}=1$$

$$t_{13} = \frac{(-1)^{13}}{\sqrt{15}} = -\frac{1}{\sqrt{15}}$$

(الف)

(2)

$$t_{13} = 25 - \left[\frac{13}{4} \right] = 25 - 3 = 22$$

(ب)

$$2n-10 < 0 \rightarrow n < 5$$

جواب

(الف)

(3)

$$n^2 - 14n + 40 < 0 \rightarrow (n-4)(n-10) < 0$$

جواب

(ب)

$$n < 4 \text{ و } n < 10 \rightarrow 4 < n < 10$$

$$2n-15 < 0 \rightarrow 2n < 15$$

$$n < 7.5$$

جواب

(الف)

(4)

$$n^2 - 12n + 27 < 0 \rightarrow (n-3)(n-9) < 0$$

$$3 < n < 9$$

جواب

(ب)

$$n < 3 \text{ و } n < 9 \rightarrow n < 3$$

$$\left. \begin{array}{l} t_p = v \\ t_q = 2v \end{array} \right\} t_p = f \rightarrow \begin{array}{l} t_q = t_p + \omega \\ v = v + \omega \Rightarrow \omega = \omega \\ d = v \end{array}$$

(5)

(5)

$$\alpha_n = 3n - 5 \rightarrow t_p = 9 - 5 = (4)$$

(1)

$$t_p = 3^2 - 1 + 2 = (-7)$$

؟ اصل

(5) (الف)

$$t_1 = 1 + 1 + 1 = (3)$$

؟ اصل

(ج)

$$\begin{array}{cccccc} -1 & -2 & -3 & -4 & -5 & -6 \\ (1) & (2) & (3) & (4) & (5) & (6) \end{array}$$

$$\rightarrow n^2 - 5n + 1$$

$$\alpha_0 = 100 - 50 + 1 = 51$$

(5)

(7)

$$t_n = -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, \dots$$

$$\left\{ \begin{array}{l} +5 \\ +4 \\ +3 \end{array} \right\} \begin{array}{l} (1) \\ (2) \\ (3) \end{array}$$

$$\alpha_n = 2n^2 - n - 1$$

(5)

(1)

جواب ۲۰ افتاد

س ۲۰ جواب در جدول

$$\alpha + 2 = 2\alpha + 1$$

$$\alpha = 1$$

$$2\alpha + 1 > \alpha + 2$$

$$\alpha > 1$$

$$\rightarrow [3, +\infty)$$

(5)

(9)

$$\frac{100}{a} = 20 \quad (ج)$$

$$\left[\frac{100}{20} \right] = 5 \quad (الف)$$

(10)

(10)

$$\left[\frac{100}{20} \right] = 5, \frac{100}{a} = 20 \rightarrow 20 \times 20 = 400$$

$$\left[\frac{100}{18} \right] = 5 \quad (ج)$$