

$$r-1 = 2, 4, 9, 14, 26$$

$$\begin{matrix} \{2\} & \{11\} & \{24\} & \{47\} & \{74\} \\ (2) & (4) & (9) & (14) & (26) \end{matrix}$$

(الف) ①

$$\begin{matrix} \frac{2}{2} & \frac{4}{4} & \frac{9}{9} & \frac{14}{14} & \frac{26}{26} \\ (2) & (4) & (9) & (14) & (26) \end{matrix}$$

(ب)

$$r_n = 14 \Rightarrow \frac{(-1)^{14}}{\sqrt{14+1}} = \frac{-1}{\sqrt{15}} \rightarrow \begin{cases} ① = \frac{-1}{-2} = \frac{1}{2} \\ ② = \frac{-1}{2} = -\frac{1}{2} \end{cases}$$

(الف) ②

$$r_n = 14 \Rightarrow r \times 14 - \left[\frac{14}{r} \right] = r \times 14 - [r, 14] = r \times 14 - r = 14 - r = 14 - 1 = 13$$

$$r_n - 1 = 0 \rightarrow r_n = 1 \rightarrow n = 14$$

$$\begin{matrix} 14 \\ - & + \end{matrix} \rightarrow \text{مشتق حصة}$$

(الف)

$$n^2 - 12n + 10 = (n-2)(n-5) \rightarrow \begin{matrix} n=2 \\ n=5 \end{matrix}$$

$$\begin{matrix} 2 & 5 \\ + & - & + \end{matrix} \Rightarrow \text{مشتقها} = 9 - 5 + 1 = 5$$

(ب)

$$r_n - 14 = 0 \rightarrow n = \frac{14}{r} = 14$$

$$\begin{matrix} 14 \\ - & + \end{matrix} \Rightarrow \text{مشتق} = 14$$

(الف)

$$n^2 - 12n + 26 = (n-2)(n-9) \rightarrow \begin{matrix} n=2 \\ n=9 \end{matrix}$$

$$\begin{matrix} 2 & 9 \\ + & - & + \end{matrix} \Rightarrow \text{مشتقها} = 9 - 2 + 1 = 8$$

(ب)

$$\begin{matrix} n=2 \Rightarrow 2a+b=14 \\ n=9 \Rightarrow 9a+b=22 \end{matrix} \xrightarrow{r-1} \begin{cases} -8a - 14 = -14 \\ 9a + b = 22 \end{cases} \Rightarrow \begin{cases} 14 + b = 14 \\ b = -14 \end{cases}$$

$$\frac{9a + b}{-8a - 14} = \frac{22}{-14} \Rightarrow 14a = 14 \Rightarrow a = 1$$

$$r_n = 2 \Rightarrow r_n - 14 = r \times 2 - 14 = 2$$

$n^2 - 4n + 2 \Rightarrow$
 1) min $\Rightarrow \frac{-b}{2a} = \frac{4}{2} = 2 \Rightarrow$ مقدار $= (2)^2 - 4(2) + 2 = 4 - 8 + 2 = -2$ (الف) 4

$n^2 + 4n + 1 \Rightarrow$
 1) min $\Rightarrow \frac{-b}{2a} = \frac{-4}{2} = -2 \Rightarrow$ مقدار $= (-2)^2 + 4(-2) + 1 = 4 - 8 + 1 = -3$ (ب)
 چند تابع غیر یکنواخت باشد

$-4, -1, 1, 3, \dots$
 $\left\{ \begin{array}{l} 2a = 2 \Rightarrow a = 1 \\ a + b + c = -2 \\ 1 + b = -2 \Rightarrow b = -3 \end{array} \right\}$
 $\frac{f_{max}}{f_{min}} = \frac{n^2 - 4n + 1}{1}$
 از طرف
 $c - 1 = -2 \Rightarrow c = -1$
 $t_n = 1 \Rightarrow t_1 = (1)^2 - 4(1) + 1 = 1 - 4 + 1 = -2$

$-4, -1, 1, 3, \dots$
 $\left\{ \begin{array}{l} a + b + c = -4 \\ 2 + b = -4 \Rightarrow b = -6 \\ c + 1 = -4 \Rightarrow c = -5 \end{array} \right\} \Rightarrow$ برای عدد
 $n^2 - n - 5$
 $b = -1$

$2a + 1 \geq a + 2 \Rightarrow a \geq 1$
 حالت اول
 $a + 2$
 $2a + 1$

حالت دوم
 $a + 2$
 $2a + 1$

$A \cup B \rightarrow \Delta \cup \Psi$
 $n(A \cup B) = n(A) + n(B) - n(A \cap B)$
 $n(A \cup B) = 33 + 10 - 4 = 39$
 41

$A \cap B = 10$ (ع)
 $n(A \cap B) = \frac{90 - 10}{10} + 1 = 8$
 4

$B = 10$ (ب)
 $n(B) = \frac{100 - 10}{10} + 1 = 10$

$A = 3$ (الف)
 $n(A) = \frac{99 - 3}{3} + 1 = 33$