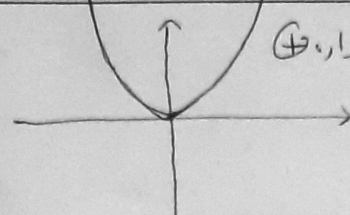


الف) $\left. \begin{matrix} (n, y) \in \mathcal{F} \\ (n, x) \in \mathcal{F} \end{matrix} \right\} \Rightarrow x_1 = y_1 + 2n - 1 = y_2 \Rightarrow y_1 = y_2 \Rightarrow$ تابع نیست

ب) $n = 90 \Rightarrow 90 \cos y = 0 \Rightarrow \cos y = 0 \Rightarrow y \in (2k\pi + \frac{\pi}{2})$ تابع نیست

ج) $\frac{n+y}{x} = \sqrt{ny} \Rightarrow (\sqrt{n} - \sqrt{y})^2 = 0 \Rightarrow \sqrt{n} = \sqrt{y} \Rightarrow n = y \Rightarrow \left. \begin{matrix} (n, y) \in \mathcal{F} \\ (n, x) \in \mathcal{F} \end{matrix} \right\} \Rightarrow x_1 = y_1 = y_2 \Rightarrow$ تابع نیست

د) $y^2 + 2y = ny^2 + 2n \Rightarrow n = \frac{y^2 + 2y}{y^2 + 2} \Rightarrow \left. \begin{matrix} (n, x) \in \mathcal{F} \\ (n, y) \in \mathcal{F} \end{matrix} \right\} \Rightarrow \frac{x_1 + 2x_1}{x_1^2 + 2} = \frac{y_1 + 2y_1}{y_1^2 + 2} \Rightarrow x = y \Rightarrow$ تابع نیست

الف) $y \geq 0 \Rightarrow y = x^2$
 $y < 0 \Rightarrow y = \frac{x^2}{x} \Rightarrow$  $\Rightarrow y > 0 \Rightarrow y = x^2$ تابع نیست

ب) $n = 0 \Rightarrow y \in [1, 2) \Rightarrow$ تابع نیست

$|n-1| \geq 2 \Rightarrow n-1 \geq 2 \Rightarrow n \geq 3$
 $n-1 \leq -2 \Rightarrow n \leq -1$
 $y = \begin{cases} 2n^2 - b & n \leq -1 \\ a + 2n & -1 < n < 3 \\ 2n^2 - b & n \geq 3 \end{cases}$

$n = 3 \rightarrow a + 9 = 12 - b \Rightarrow a + b = 3$

$n = a \Rightarrow a - ab + a^2 = 0 \xrightarrow{a \neq 0} 1 - b + a = 0 \Rightarrow a + b = 1 \Rightarrow a - 1 = -b$

یکی از ریشه ها $\Rightarrow$ جمع فرایب برابر $\Rightarrow$ است $\Rightarrow$ $a + b = 1$

$a = 0 \Rightarrow b + c = 0 \Rightarrow c = -b$ $\leftarrow$ b متن است

$\Rightarrow 2a + c - 3|b| = -2b - 3(-b) = b$

$$n = 7 \Rightarrow y + b = 0 \Rightarrow \boxed{b = -7}$$

* ۲۹ فوج را صفر می کند

(الف) $n^2 - n > 0 \Rightarrow \underbrace{n}_{>0} \underbrace{(n-1)}_{>0} > 0$

$$\Rightarrow D_f = [-1, 0] \cup [1, +\infty)$$

ب) $|n|-1 \rangle \rightarrow |n\rangle$
 $\searrow$
 $\rightarrow |n-1\rangle$

$$\Rightarrow D_f = \overline{(-\infty, 1) \cup (1, +\infty)}$$

البيان الثاني $|n| - [n] \neq 0 \Rightarrow |n| \neq [n] \xrightarrow[\text{التناقض في اثنه}]{\text{دفعها}} n \neq [n] \Rightarrow n - [n] \neq 0$

$$\Rightarrow D_{\neq} = R - z^+ - \{o\} \rightarrow R - w$$

$$b) \begin{matrix} n \geq 0 \\ y \geq 0 \end{matrix} \leadsto \sqrt[n]{a} \leadsto n \leq 1 \Rightarrow D_f = [0, 1]$$

$$[r_n - \frac{1}{r}] + [r_n + \frac{r}{r}] > 0 \Rightarrow [r_n + \frac{1}{r}] + [r_n + \frac{r}{r}] > 0 \Rightarrow [r_n + \frac{1}{r}] > 0$$

$$\Rightarrow r_{n+1} + \frac{1}{r} \geq 1 \Rightarrow r_n \geq \frac{1}{r} \Rightarrow n \geq \frac{1}{r} \Rightarrow D \neq \left[\frac{1}{r}, +\infty \right)$$

$$1 - \log(r_n - a) \geq 0 \Rightarrow \log(r_n - a) \leq 1 \Rightarrow r_n - a \leq 10 \Rightarrow n \leq \frac{a+10}{r}$$

$$\begin{aligned} x_{n-a} > 0 &\Rightarrow n > \frac{a}{r} \\ \Rightarrow pf &= \left(\frac{a}{r}, \frac{a+10}{r} \right] \Rightarrow \begin{cases} b = \frac{a}{r} \\ c = \frac{a}{r} + 2 \end{cases} \\ pf &= (b, c] \end{aligned}$$

$$\Rightarrow C - b = 0$$