

۲. آخرین خوب نویسی

هلیا توکلیان

۱ - باوردن اول باشد

$$(a-2)n^2 + an + b$$

$$a=2$$

$$2n + b \Rightarrow n=2 \Rightarrow 4 + b = 0$$

$$b = -4$$

۲

$$a > 0$$

$$\Delta \leq 0$$

$$4 \leq 4 - 4m^2$$

۲ - شماره ناشی است

$$m^2 \leq 1$$

$$-1 \leq m \leq 1$$

$$1 - (-1) = 2$$

۲

$\in$ ۲، ۱، ۰، -۱، -۲
تا عدد صحیح

$$\begin{cases} 4 - n^2 \geq 0 \Rightarrow -2 \leq n \leq 2 \\ [n] + [n] + 1 \\ n \in \mathbb{Z} \Rightarrow 1 \checkmark \\ n \notin \mathbb{Z} \Rightarrow 0 \text{ و } 2 \end{cases}$$

۳ -

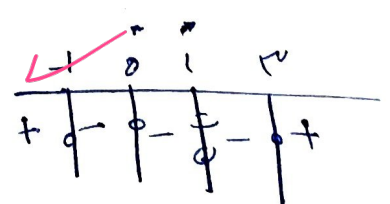
$$الف) y = \sqrt{x^4 + 4x^2} \Rightarrow y = \sqrt{x^2(n+2)} \Rightarrow x^2(n+2) \geq 0$$

۴ -

$$D_f = [-2, +\infty)$$

$$ب) y = \sqrt{\frac{(n^2-1)(n^2-3n^2)}{n^2-1}} \Rightarrow$$

$$\frac{(n^2-1)(n^2-3n^2)}{n^2-1} \geq 0 \Rightarrow \frac{(n-1)(n+1)(n-3)}{(n-1)(n+1)} \geq 0$$



$$D_f = (-\infty, -1] \cup \{0\} \cup [3, +\infty)$$

$$الف) y = \sqrt{(n-1)-2} \Rightarrow |n-1|-2 \geq 0 \Rightarrow |n-1| \geq 2$$

۵ -

$$D_f = (-\infty, -1] \cup [3, +\infty)$$

۲

$$-) y = \sqrt{\epsilon - |x - a|} \Rightarrow \epsilon - |x - a| \geq 0$$

$$|x - a| \leq \epsilon$$

$$- \epsilon \leq x - a \leq \epsilon$$

$$D_f = [-\epsilon, \epsilon]$$

$$y = \sqrt{1 - |x|}$$

(الف - 6)

$$1 - |x| \geq 0$$

$$|x| \leq 1 \Rightarrow x > 0 \rightarrow x \leq 1$$

$$x < 0$$

$$-1 \leq x \leq 1$$

$$-x^2 \leq 1 \Rightarrow -1 \leq x \Rightarrow \mathbb{R}^-$$

$$-) y = \frac{1}{\sqrt{\epsilon - |x - a|} - 1}$$

$$\sqrt{\epsilon - |x - a|} = 1$$

$$\epsilon - |x - a| = 1$$

$$\Rightarrow \epsilon = (a - a) \Rightarrow \begin{matrix} x = a \\ x = a \end{matrix} \text{ ملاحظة}$$

$$\epsilon - |x - a| \geq 0 \Rightarrow \epsilon \geq |x - a| \Rightarrow -\epsilon \leq x - a \leq \epsilon$$

$$-\epsilon \leq x \leq a$$

$$D_f = [-\epsilon, \epsilon] \setminus \{a\}$$

$$\text{جاء } y = \frac{\sin^2 x - 1}{\cos x} \Rightarrow \cos \neq 0$$

$$D_f = \mathbb{R} - \left\{ \frac{\pi}{2} + k\pi \right\}$$

$$-) y = \frac{\cos x}{x \cos - 1} \Rightarrow x \cos \neq 1 \Rightarrow \cos \neq \frac{1}{x}$$

$$D_f = \mathbb{R} - \left\{ \frac{\pi}{x} \right\}$$

$$I \cap II \Rightarrow D_f = (-\infty, -1)$$

$$I \Rightarrow (-\infty, -1)$$

$$f = \frac{n+r}{|r_{n+1}| - |n+r|}$$

$$|r_{n+1}| - |n+r| \neq 0$$

$$|r_{n+1}| \neq |n+r|$$

$$(r_{n+1})^r \neq (n+r)^r$$

$$\{n^r + \varepsilon_{n+1} \neq n^r + \varepsilon_n + a$$

$$r n^r - r n_{-1} \neq 0$$

$$(r n + \varepsilon)(n - r) \neq 0$$

$$D_f = \mathbb{R} \cdot \left\{ \frac{\varepsilon}{r}, r \right\} \subseteq n \neq r$$

$$n \neq \frac{\varepsilon}{r}$$

$$\rightarrow |r_{n+1}| - |n+r| \geq 0$$

$$|r_{n+1}| \geq |n+r|$$

$$(r_{n+1})^r \geq (n+r)^r$$

$$r n^r - (n+r) \geq 0$$

$$n \leq -\frac{\epsilon}{r}$$

$$n \geq r$$

$$D = (-\infty, -\frac{\epsilon}{r}] \cup [r, +\infty)$$

$\mathcal{D}$

$$\log_{1/a}^{(n-1)} > 0 \Rightarrow 1 < r_{n-1} \Rightarrow r < r_n \Rightarrow 1 < n \quad - 9$$

$$r_{n-1} > 0 \Rightarrow r_n > 1 \rightarrow n > \frac{1}{r}$$

$$\log_{1/a} \log_a^{(n-1)} \geq 0 \Rightarrow \log_a^{r_{n-1}} \geq 1 \Rightarrow a \geq r_{n-1} \Rightarrow r_n \leq r \Rightarrow n \leq r$$

$$c)) \quad r(\cos s_{n+1}) > 0 \Rightarrow \cos s_n > -\frac{1}{r}$$

$$P_f = \mathbb{R} - \left[rk\pi + \frac{r}{\epsilon}, rk\pi + \frac{\epsilon r}{r} \right]$$

$$-) \quad \log \frac{n-1}{n+1} \geq 0 \Rightarrow \frac{n-1}{n+1} > 1 \rightarrow \frac{n-1}{n+1} - 1 > 0 \Rightarrow \frac{-r}{n+1} > 0$$

$$II \Rightarrow \frac{n-1}{n+1} > 0 \rightarrow \frac{-1}{1+b} \Rightarrow (-\infty, -1) \cup [1, +\infty)$$

$$I \cap II \Rightarrow P_f = (-\infty, -1)$$