

غلط آنین

الف) $y = \frac{x^2(n-4)}{x(n^2-1)} \geq 0$ $\rightarrow$ $\begin{vmatrix} - & * & + & - \\ - & + & + & - \\ - & + & + & - \end{vmatrix}$ $D_f = (-1, 0) \cup (0, 1) \cup [4, +\infty)$

ب) $\frac{x^2(n^2-1)}{x(n^2-1)} \geq 0$ $\rightarrow$ $\begin{vmatrix} * & * & * \\ - & + & + \\ + & + & + \end{vmatrix}$ $D_f = \mathbb{R} - \{-1, 0, 1\}$
 $D_f = (-\infty, -1) \cup (-1, 0) \cup (0, 1) \cup (1, +\infty)$

الف) $x + |x| \geq 0 \rightarrow \begin{matrix} (+) \\ (-) \\ (0) \end{matrix} \begin{matrix} \checkmark \\ \times \\ \times \end{matrix}$ $D_f = \mathbb{R}^+ \leq x \geq 0 \leq (+\infty)$

ب) $x|x| \geq 0 \rightarrow \begin{matrix} (+) \\ (-) \\ (0) \end{matrix} \begin{matrix} \checkmark \\ \times \\ \times \end{matrix}$ $D_f = \mathbb{R}^+ \leq x \geq 0 \leq (+\infty)$

الف) $2 - [x] \geq 0 \rightarrow [x] \leq 2 \rightarrow (-\infty, 3)$

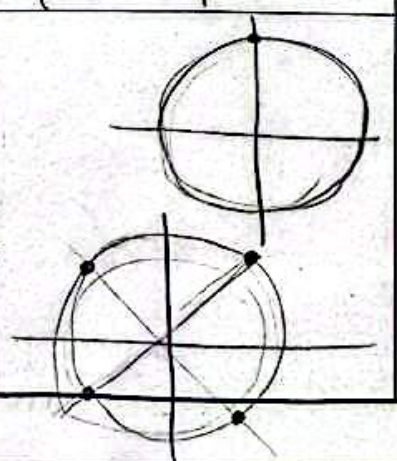
ب) $2 - [x] > 0 \rightarrow [x] < 2 \rightarrow (-\infty, 2)$

الف) $y = \sqrt{[x - \frac{1}{x}] + [x + \frac{1}{x}]} \rightarrow 1 + [x - \frac{1}{x}] + [x + \frac{1}{x}] \geq 1$
 $2[x + \frac{1}{x}] \geq 1 \rightarrow [x + \frac{1}{x}] \geq \frac{1}{2} \xrightarrow{\text{البروکس}} \frac{1}{x} \text{ به } x + \frac{1}{x} \geq 1 \rightarrow x \geq \frac{1}{x}$
 $D_f = [\frac{1}{x}, +\infty)$

ب) $[x - \frac{1}{x}] + [-(x - \frac{1}{x})] \geq 0 \rightarrow x - \frac{1}{x} \in \mathbb{Z} \Rightarrow 0$
 $\hookrightarrow x - \frac{1}{x} \notin \mathbb{Z} \Rightarrow -1$ $D_f = \{x | x = k + \frac{1}{x}, k \in \mathbb{Z}\}$

الف) $\sin x - 1 \neq 0 \rightarrow \sin x \neq 1 \rightarrow \mathbb{R} - \{2k\pi + \frac{\pi}{2}\}$

ب) $2\sin^2 x - 1 \neq 0 \rightarrow \sin^2 x \neq \frac{1}{2} \rightarrow \sin x \neq \pm \frac{1}{\sqrt{2}}$
 $D_f = \mathbb{R} - \{k\frac{\pi}{4} + \frac{\pi}{4}\}$

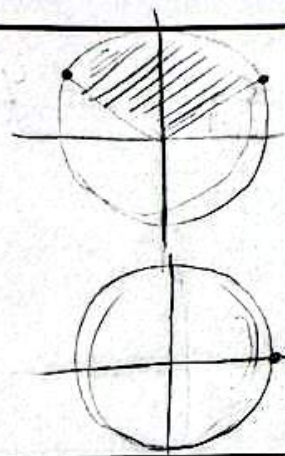


الف) $\rho \sin n - 1 \geq 0 \rightarrow \rho \sin n \geq 1 \rightarrow \sin n \geq \frac{1}{\rho}$

$$Df = [r_{km} + \frac{m}{g}, \quad \frac{r_{km} + m - \frac{m}{g}}{1} = r_{km} + \frac{m}{g}]$$

$$\rightarrow \cos n - 1 \gg 0 \rightarrow \cos n \gg 1$$

از یک بندگی نیست ← فقط برابر $D_f = \{x \text{ km}\}$



(الف) $-1 \leq |x| - 3 \leq 1 \rightarrow 2 \leq |x| \leq 4 \rightarrow 2 \leq x \leq 4$

$$Df = [-\kappa, -r] \cup [r, \kappa] \quad \text{②} \quad \checkmark$$

$\downarrow -2 \geq x \geq -r$

$$\Rightarrow -1 \leq n^r + r_{n+1} \leq 1 \rightarrow -1 \leq n^r + r_{n+1} \rightarrow n^r + r_{n+1} \geq 0 \quad (r)^v$$

$\begin{array}{c|ccc} & -1 & -1 & \\ \hline & 1 & 0 & -1 & + \end{array}$
 $\begin{array}{c|ccc} & -1 & 0 & \\ \hline & 1 & 0 & -1 & + \end{array}$
 $\rightarrow 1 \gg n+1 \rightarrow$
 $\begin{array}{c|ccc} & -1 & -1 & -1 & \\ \hline & 1 & 0 & -1 & + \end{array}$
 $D_f = [-1, -1] \cup [-1, 0]$

الف) $r - \log_r^{(n-r)} \geq 0$

$$x - r > 0 \rightarrow \underline{x > r}$$

$$\log_p^{n-r} \nVdash r \rightarrow n-r \nVdash q \rightarrow \underline{n \nVdash 11}$$

$$Df = (r, 11]$$

$$\therefore) \quad x^k - n > 0 \rightarrow x(n^{\frac{1}{k}} - 1) > 0$$

$$\frac{-1 \quad 0 \quad 1}{- \phi + 1 - \phi +} \quad D_f = (-1, 0) \cup (1, +\infty)$$

الف) $x^n + 1 \neq 0 \rightarrow x^n \neq -1$ مما هو بمرار $\rightarrow D_L = \mathbb{R}$

—) $r^n - 1 \neq 0 \rightarrow r^n \neq 1 \rightarrow n \neq 0 \rightarrow Df = \mathbb{R} - \{0\}$

e) $r^n - r \neq 0 \rightarrow r^n \neq r \rightarrow (r^r)^n \neq r^r \rightarrow r^n \neq 1 \rightarrow n \neq \frac{1}{r} \rightarrow 0 \notin \mathbb{R} - \left\{ \frac{1}{r} \right\}$

c) $r^n - r \neq 0 \rightarrow r^n \neq r \rightarrow n = \log_r r \rightarrow Df = \mathbb{R} - \{\log_r r\}$

الف) $r_{n+1} \in W \rightarrow r_n \in W-1 \rightarrow n \in \frac{W-1}{r}$

④ ✓ $Df = \{n \mid n = \frac{k-1}{r}, k \in w\}$

$$\rightarrow \frac{r_X - r}{r_X - 0} \in W$$

$$\rightarrow x = -\frac{-\partial w + p}{r w - p} \Rightarrow \frac{\partial w - p}{r w - p} = y$$

$$D_f = \{n \mid n = \frac{\delta k - r}{rk - r}, k \in w\}$$