

الف) $y = \frac{n+3}{2n^2+3n^2-11n+3}$ ۱۹۵ افزین خوب نویسنده (۱)

$$P_f = \mathbb{R} - \left\{ -\frac{3}{2}, -1, 1 \right\}$$

$$\frac{2n^2+3n^2-11n+3}{2n^2+3n^2} \mid \frac{n-1}{2n^2+3n^2}$$

$$\frac{2n^2-11n+3}{-2n^2+3n}$$

$$(2n^2+3n^2)(n-1)$$

$$(n+3)(n-1)(n-1)$$

$$n = -\frac{3}{2} \quad n = -1 \quad n = 1$$

ب) $y = \frac{n+3}{2n^2+3n^2+11n+3}$

$$\frac{2n^2+3n^2+11n+3}{2n^2+3n^2} \mid \frac{n+1}{2n^2+3n^2}$$

$$\frac{2n^2+11n+3}{-2n^2-11n}$$

$$(n+1)(2n^2+11n+3)$$

$$(n+1)(n+3)(n+1)$$

$$\mathbb{R} - \left\{ -3, -\frac{1}{2}, -1 \right\}$$

$$n = -\frac{3}{2} \quad n = -\frac{1}{2} \quad n = -1$$

الف) $y = \frac{n+3}{n^2-2n^2+2n-1}$ ۱۹۶ افزین خوب نویسنده (۱)

$$P_f = \mathbb{R} - \{1\}$$

$$(n^2-n+1)(n-1)$$

ب) $y = \frac{n+3}{n^2-2n^2-2n-1}$

$$\frac{3}{+} \mid \frac{1}{-} \mid +$$

$$P_f = (-\infty, -\frac{3}{2}) \cup (\frac{1}{2}, \infty)$$

$$y = \frac{2}{n^2-\omega \mid \omega-1 \mid -11\omega+3}$$

$$n_1 = n^2-\omega n+\omega-11n+\omega$$

$$n^2-11n+\omega+1 = (n-\omega)(n-1)$$

$$n_2 = n^2+\omega n-\omega-11n+\omega$$

$$n^2+3n$$

$$P_f = \mathbb{R} - \left\{ \omega, -\frac{3}{2}, \omega, 1 \right\}$$

$$n(n+3) \neq 0$$

$$n \neq 0 \quad n \neq -3$$

DATE / /

SUBJECT :

ج) $y = \sqrt{[a] - 2}$ $[a] - 2 \geq 0$ (1)

$[a] \geq 2$ $D_f = (-\infty, 2]$

ب) $y = \frac{a^2 + 1}{[a] - 2[a] - 2}$ $([a] - 2)([a] + 1) \neq 0$

$[a] \neq 2$ $[a] \neq -1$
 $\mathbb{R} - \{ [2, 2], [-1, -1] \}$ (2)

ج) $y = \sqrt{[a - \frac{1}{x}] + [a + \frac{1}{x}]}$ $+1 [a - \frac{1}{x}] + [a + \frac{1}{x}] \geq 0$ (3)

$[a + \frac{1}{x}] \geq 1$

$[a + \frac{1}{x}] \geq 1$

$a + \frac{1}{x} \geq 1$

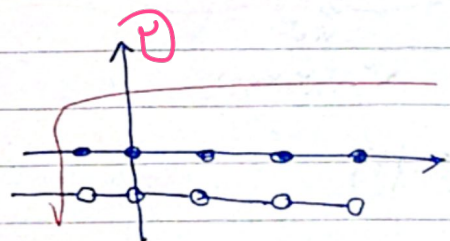
$[\frac{1}{x} > +\infty)$

$D_f = [\frac{1}{x}, +\infty)$ (4)

ب) $\sqrt{[a - \frac{1}{x}] + [\frac{1}{x} - a]}$

$\downarrow$
 $+$

$[+] + [-] \geq 0$



$t \in \mathbb{Z}$

$a - \frac{1}{x} \in \mathbb{Z}$ $a \in \mathbb{Z} + \frac{1}{x}$

$D_f = \{ n/n \in \mathbb{K}, k \}$ $D_f = \{ n/n = k + \frac{1}{x}, k \in \mathbb{Z} \}$

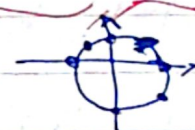
... دالة

$y = \frac{\cot x + 1}{\tan x + 1}$ $\rightarrow \sin x$

$\tan x \neq -1$ $\tan x \neq -1$

$\sin x \neq 0$
 $\cos x \neq 0$

$D_f, D = \{ k\pi, k\pi + \frac{\pi}{2}, k\pi + \frac{3\pi}{2} \}$



ب) $\sqrt{1-r\sin^2\alpha}$

$$1-r\sin^2\alpha \geq 0$$

$$-\frac{1}{r} \leq \sin\alpha \leq \frac{1}{r}$$

د

$$D_f = \left[k\pi - \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$

الف) $y = \sqrt{r\sin x - 1}$

$$r\sin x - 1 \geq 0$$

$$\sin x \geq \frac{1}{r}$$



(V)

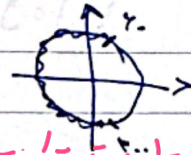
$$D_f = \left[\frac{\pi}{r}, \pi - \frac{\pi}{r} \right]$$

(1, 1/2)

ب) $y = \sqrt{1-r\cos\alpha}$

$$1-r\cos\alpha \geq 0$$

$$\cos\alpha \leq \frac{1}{r}$$



باید به صورت بازه اعلام کنی!

$$R = \left[k\pi - \frac{\pi}{r}, k\pi + \frac{\pi}{r} \right]$$

بازرسی!

$$D_f = \left[2k\pi + \frac{\pi}{r}, 2k\pi + \frac{5\pi}{r} \right]$$

اینجوری فقط! تا نقطه منتهی نری!

الف) $\arcsin(\alpha^2 + 4\alpha + 1)$

$$-1 \leq \sin(\alpha^2 + 4\alpha + 1) \leq 1$$

$$-1 \leq \alpha^2 + 4\alpha + 1 \leq 1$$

$$D_f = [-3, -1] \cup [-1, 0]$$

$$\begin{aligned} &\leq \alpha^2 + 4\alpha + 1 \\ &\leq (\alpha+1)(\alpha+3) \end{aligned}$$

$$\begin{array}{c} -3 & -1 \\ + & | & - & | & + \end{array}$$

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

$$\begin{aligned} &\alpha^2 + 4\alpha + 1 \leq 1 \\ &\alpha(\alpha+3) \leq 0 \\ &\begin{array}{c} -3 & 0 \\ + & | & - & | & + \end{array} \end{aligned}$$

$$[-3, 0]$$

ب) $\cos y = \sqrt{a-4y}$

$$-1 \leq \sqrt{a-4y} \leq 1$$

$$-1 \leq a-4y \leq 1$$

$$-a \leq -4y \leq -a$$

$$\frac{a}{4} \geq y \geq \frac{a}{4}$$

$$D_f = \left[\frac{a}{4}, \frac{a}{4} \right]$$

د

$$(1 - \log_r^n)$$

$$\text{الف) } y = \log_r$$

$$1 - \log_r^n > 0$$

$$\log_r^n < 1$$

دقت كن!

$$D_f = (r, +\infty)$$

$$\rightarrow D_f = (0, r)$$

$$\text{ب) } y = \log_r \left(\frac{1}{r} \right)$$

$$n > 0$$

$$1 - \log_r \frac{n}{r} > 0$$

$$\log_r \frac{n}{r} < 1$$

$$n > \frac{1}{r}$$

$$D_f = \left(\frac{1}{r}, +\infty \right)$$

$$\text{الف) } \sqrt{\frac{r^n - n^2}{r} - 1}$$

$$\frac{r^n - n^2}{r} > 1$$

(1.

$$D_f = [4, r]$$

$$-(n^2 - 2n + r) > 0$$

$$-(n - r)(n - 1) > 0$$

$$n > r \quad n > 1$$

(2)

$$\text{ب) } \left(\frac{rn + d}{rn + \varepsilon} \right)!$$

$$\frac{1}{-1} \quad \frac{r}{-1} \quad \frac{1}{-1}$$

$$\frac{rn + d}{rn + \varepsilon} \in W$$

$$rn + d \in rn + \varepsilon W$$

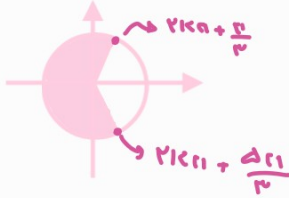
$$rn - rn \in -d + \varepsilon W$$

$$n(r - rW) \in -d + \varepsilon W$$

$$n \in \frac{-d + \varepsilon W}{r - rW}$$

$$\{n \mid n > \frac{-d + \varepsilon W}{r - rW}, \quad \text{كـ} \}$$

ب-ص $1 - r \cos n \geq 0 \rightarrow \cos n \leq \frac{1}{r}$



$\rightarrow Df_z \left[rkn + \frac{\pi}{r}, rkn + \frac{\pi}{r} \right]$

الف-ا $y = \log_r (1 - \log_r^n)$ $\rightarrow \log_r^n \rightarrow n > 0$

$\rightarrow 1 - \log_r^n > 0 \rightarrow \log_r^n < 1 \rightarrow n < r$

$Df_z (0, r)$