

$$\left. \begin{aligned} 1-x_1 &\Rightarrow 1-x_1 \\ 1-\sqrt{1-x_1} &\Rightarrow 1-\sqrt{1-x_1} \Rightarrow 14(1-x_1) \Rightarrow 14-x_1-14 \end{aligned} \right\} \Rightarrow D_f = [-14, 2]$$

$$\left. \begin{aligned} 1) \quad n-2 \lambda_1 &\Rightarrow n \lambda_1 \\ 2) \quad 1-\sqrt{n-2} \lambda_1 &\Rightarrow 1 \lambda_1 \sqrt{n-2} \Rightarrow 1 \lambda_1 n-2 \Rightarrow 11 \lambda_1 \end{aligned} \right\} \Rightarrow D_f = [2, 11]$$

$$\text{أي } \sqrt{K - r n^2} \gamma_1 = 0 \Rightarrow K - r n^2 \gamma_1 = 0 \Rightarrow K \gamma_1 r n^2 \Rightarrow r \gamma_1 n^2 \Rightarrow \sqrt{r} \gamma_1 n \Rightarrow \sqrt{r} \gamma_1 n \in [-\sqrt{r}, \sqrt{r}]$$

$$\text{ب) } \sqrt{3|x| - 9} \geq 0 \Rightarrow 3|x| - 9 \geq 0 \Rightarrow 3|x| \geq 9 \Rightarrow |x| \geq 3 \Rightarrow \begin{matrix} x \geq 3 \\ x \leq -3 \end{matrix} \Leftrightarrow (-\infty, -3] \cup [3, +\infty)$$

$$\text{المشتق } \sqrt{\frac{|n|+1}{|n|-r}} \Rightarrow \frac{|n|-r \neq 0}{|n| \neq r} \Rightarrow n \neq \pm r. Df = \mathbb{R} - \{-r, r\}$$

$$b) \sqrt{\frac{\sqrt{x}+1}{\sqrt{x}-1}} \Rightarrow x \geq 0$$

$$\lambda_1 = \frac{\sqrt{3-|x|}}{|x|+2} \Rightarrow \sqrt{3-|x|} \geq 0 \Rightarrow 3-|x| \geq 0 \Rightarrow |x| \leq 3 \Rightarrow x \in [-3, 3]$$

$$\text{ب) } \frac{\sqrt{r-x^2}}{|x|-1} \Rightarrow \begin{cases} |x|-1 \neq 0 \Rightarrow |x| \neq 1 \Rightarrow x \neq \pm 1 \\ r-x^2 \geq 0 \Rightarrow r \geq x^2 \Rightarrow r \geq x \geq -r \end{cases} \Rightarrow \mathcal{D}_f = [-r, r] - \{-1, 1\}$$

$$\text{ii)} \quad \frac{x+1}{\sqrt{x+|x|}} \Rightarrow x+|x| > 0 \Rightarrow |x| > -x \Rightarrow D_f = \mathbb{R}^+$$

ج) $\frac{1}{\sqrt{x} |x|}$ $\begin{matrix} \oplus \checkmark \\ \ominus \times \\ \odot \times \end{matrix}$ $D_f = \mathbb{R}^+$

الف) $\sqrt{2-[x]} \Rightarrow 2-[x] > 0 \Rightarrow x < 2 \Rightarrow D_f = (-\infty, 2)$

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ب) $\frac{1}{\sqrt{2-[x]}} \Rightarrow 2-[x] > 0 \Rightarrow x < 2 \Rightarrow D_f = (-\infty, 2)$

الف) $\frac{1}{x[x]} \Rightarrow x[x] = +\infty \Rightarrow D_f = \mathbb{R} - \{0\}$

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ب) $\frac{1}{\sqrt{-x[x]}} \Rightarrow -x[x] = -\infty \Rightarrow D_f = \emptyset$

الف) $\sqrt{[x-\frac{1}{r}] + [x+\frac{r}{r}]} \Rightarrow [x-\frac{1}{r}] + [x+\frac{r}{r}] > 0 \Rightarrow$

$[x+\frac{r}{r}] + [x+\frac{r}{r}] > 1 \Rightarrow 2[x+\frac{r}{r}] > 1 \Rightarrow [x+\frac{r}{r}] > \frac{1}{2} \Rightarrow$

$x+\frac{r}{r} > \frac{1}{2} \Rightarrow x > \frac{1}{2} \Rightarrow D_f = [\frac{1}{2}, +\infty)$

ب) $\sqrt{[x-\frac{1}{r}] + [-x+\frac{1}{r}]} \Rightarrow [x] + [-x] \Rightarrow a \in \mathbb{Z} \Rightarrow x-\frac{1}{r} \in \mathbb{Z} \Rightarrow x \in \mathbb{Z} + \frac{1}{r} \Rightarrow$

$D_f = \{x | x = k + \frac{1}{r}, k \in \mathbb{Z}\}$

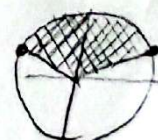
الف) $\frac{1}{r \sin^2 x - 1} \Rightarrow r \sin^2 x - 1 \neq 0 \Rightarrow \sin^2 x \neq \frac{1}{r} \Rightarrow \sin x \neq \pm \frac{1}{\sqrt{r}} \Rightarrow$

$D_f = \mathbb{R} - \{rk\pi + \frac{\pi}{r}, rk\pi + \frac{\pi}{r}\}$

ب) $\frac{\cot x + 1}{\tan x + 1} \Rightarrow \tan x + 1 \neq 0 \Rightarrow \tan x \neq -1 \Rightarrow D_f = \mathbb{R} - \{k\pi + \frac{\pi}{4}, k\pi - \frac{\pi}{4}\}$

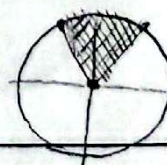
الف) $\sqrt{r \sin x - 1} \Rightarrow r \sin x - 1 > 0 \Rightarrow \sin x > \frac{1}{r}$

$D_f = [rk\pi + \frac{\pi}{4}, rk\pi + \frac{3\pi}{4}]$



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ب) $\sqrt{1 - r \cos x} \Rightarrow 1 - r \cos x > 0 \Rightarrow \frac{1}{r} > \cos x$



~~$D_f = [rk\pi + \frac{\pi}{r}, rk\pi + \frac{\pi}{r}]$~~