

اینجانب متقاضی راهنمایی جهت ارسال مدارک دارم از روی خبره دوباره ()
 بلافاصله بفرمایند و اصل مدارک را به دستم بفرمایند که اگر موردی هست درج شود

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الف)
$$\frac{x+3}{2x^3+3x^2-11x+3} \rightarrow \frac{2x^3+3x^2-11x+3}{x^3+5x-3}$$

$$2x^3+3x^2-11x+3 \neq 0$$

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

$$(2x-1)(x+3)(x-1)$$

$$\frac{1}{2}, -3, 1$$

ب)
$$\frac{2x^3+9x^2+10x+3}{-2x-2x^2} \mid x+1$$

$$2x^3+9x^2+10x+3$$

$$-2x-2x^2$$

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

$$(2x+1)(x+3)(x+1)$$

$$-\frac{1}{2}, -3, -1$$

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الف)
$$\frac{x+3}{x^3-2x^2+2x-1} \mid x-1$$

$$x^3-2x^2+2x-1$$

$$-x^2+x$$

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

$$(x+3)(x-1)$$

$$-3, 1$$

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

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$$x+3 \rightarrow x^2-7x+10 \rightarrow (x-2)(x-5)$$

$$x^2-(5|x-1|)-2x+5$$

$$x- \rightarrow x+3x \quad x(x+3)$$

$$D_f = \mathbb{R} - \{-3, 0, 2, 5\}$$

$$D_f = \mathbb{R}$$

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$$\sqrt{[x]-2} \rightarrow [x]-2 \geq 0$$

$$[x] \geq 2$$

$$[x] = t$$

$$t^2-2t-3 \neq 0$$

$$[x] = -1, [x] = 3$$

$$D_f = [-1, 0) \cup [3, 4)$$

$$[3, 4)$$

$$[x] = -1, [x] = 3$$

$$x+3(x-3) \rightarrow -1, 3$$

$$\text{الف) } \sqrt{\left[x - \frac{1}{3}\right] + \left[x + \frac{2}{3}\right]} \rightarrow \left[x - \frac{1}{3}\right] + \left[x - \frac{1}{3} + \frac{2}{3}\right] \geq 0 \quad (5)$$

$$x \left[x - \frac{1}{3} \right] \geq -\frac{1}{3} \quad \text{از این معادله} \quad \left[x - \frac{1}{3} \right] \geq \frac{1}{x} \quad D_f = \left[\frac{1}{3}, \infty \right)$$

$$\text{ب) } \sqrt{\left[x - \frac{1}{3}\right] + \left[\frac{1}{3} - x\right]} \rightarrow [x] + [-x] \quad \begin{matrix} Z \rightarrow 0 \\ Z \neq \rightarrow -1 \end{matrix} \quad \begin{matrix} x - \frac{1}{3} \in Z \\ \text{عقل اول} \end{matrix}$$

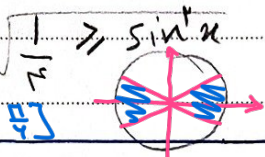
$$D_f = \left\{ x \mid x = k + \frac{1}{3}, k \in Z \right\} \quad (6)$$

$$\text{الف) } \frac{\cot x + 1}{\tan x + 1}$$



$$\tan x + 1 \neq 0 \quad D_f = R - \left\{ k\pi, k\pi + \frac{\pi}{2}, k\pi - \frac{\pi}{2} \right\}$$

$$\text{ب) } \sqrt{1 - x \sin^2 x}$$

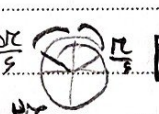


$$\frac{1}{2} \geq \sin^2 x \quad \frac{1}{2} \geq |\sin x| \quad \frac{1}{2} \geq \sin x \quad \frac{1}{2} \leq \sin x$$

$$D_f = \left[k\pi - \frac{\pi}{6}, k\pi + \frac{\pi}{6} \right]$$

$$\text{الف) } y = \sqrt{2 \sin x - 1}$$

$$x \sin x \geq \frac{1}{2}$$



$$D_f = \left[\frac{\pi}{6}, \frac{5\pi}{6} \right] \cup \left[\frac{7\pi}{6}, \frac{11\pi}{6} \right]$$

$$\text{ب) } \sqrt{1 - 2 \cos x}$$

$$\frac{1}{2} \geq 2 \cos x$$



$$D_f = \left[\frac{\pi}{3}, \frac{5\pi}{3} \right]$$

$$\text{الف) } y = \arcsin(x^2 + 3x + 1) \quad -1 \leq x^2 + 3x + 1 \leq 1$$

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

$$-1 \leq x^2 + 3x + 1$$

$$x^2 + 3x \leq 0 \rightarrow x(x+3) \leq 0$$

$$[-3, 0]$$

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

$$\text{ب) } \cos y = \sqrt{5 - 2x} \quad 1 \geq 5 - 2x \geq 0 \rightarrow x \geq 2$$

$$5 - 2x \geq 0 \quad \frac{5}{2} \geq x$$

$$D_f = \left[2, \frac{5}{2} \right]$$

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$$y = \log_2 \left(\frac{1 - \log_2^x}{1 - \log_2^x} \right) \quad x > 0$$

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$$x > 1 \rightarrow \log_2^x > 1$$

 $0 < x < 1$

$$y = \log_2 \left(\frac{1 - \log_2^x}{1 - \log_2^x} \right)$$

$$x > 0$$

$$1 > \log_2^x \rightarrow \frac{1}{2} < x < 1$$

$$y = \sqrt{x^2 - x^2} - 1 \geq 0$$

$$x^2 - x^2 \geq 1 \rightarrow x^2 \geq 1 \rightarrow x \geq 1$$

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$$D_f = [1, 3]$$

$$(x-2)(x-1)$$

$$-x^2 + 3x - 2 \geq 0$$

$$x^2 - 3x + 2 \leq 0$$

$$y = \left(\frac{3x+5}{2x+2} \right)$$

مخرج
صفر
0, 1, 2, 3, ...

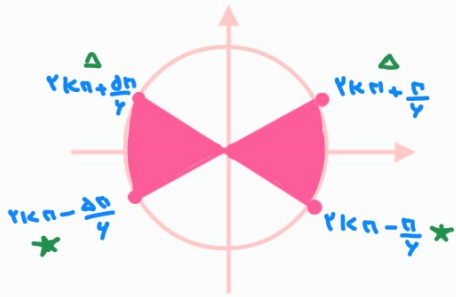
$$\frac{3x+5}{2x+2} = n$$

2

$$D = \left\{ \frac{3n-5}{2n-2} \mid n = 0, 1, 2, \dots \right\}$$

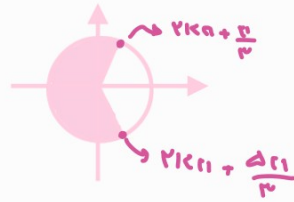
$$x = \frac{3n-5}{2n-2}$$

4- ب) $1 - r \sin^2 n \geq 0 \rightarrow r \sin^2 n \leq 1 \rightarrow \sin^2 n \leq \frac{1}{r} \rightarrow -\frac{1}{\sqrt{r}} \leq \sin n \leq \frac{1}{\sqrt{r}}$



$\rightarrow D_f = [\kappa n - \frac{\pi}{4}, \kappa n + \frac{\pi}{4}]$

5- ب) $1 - r \cos^2 n \geq 0 \rightarrow \cos^2 n \leq \frac{1}{r}$



$\rightarrow D_f = [\kappa n + \frac{\pi}{4}, \kappa n + \frac{3\pi}{4}]$