

①

$$9a - 11 + 2a + b = 0$$

$$b = -12a + 11 \rightarrow b = -24 + 11 = -13$$

-11

$$a - 2 = 0$$

$$a = 2$$

$$\Delta \leq 0$$

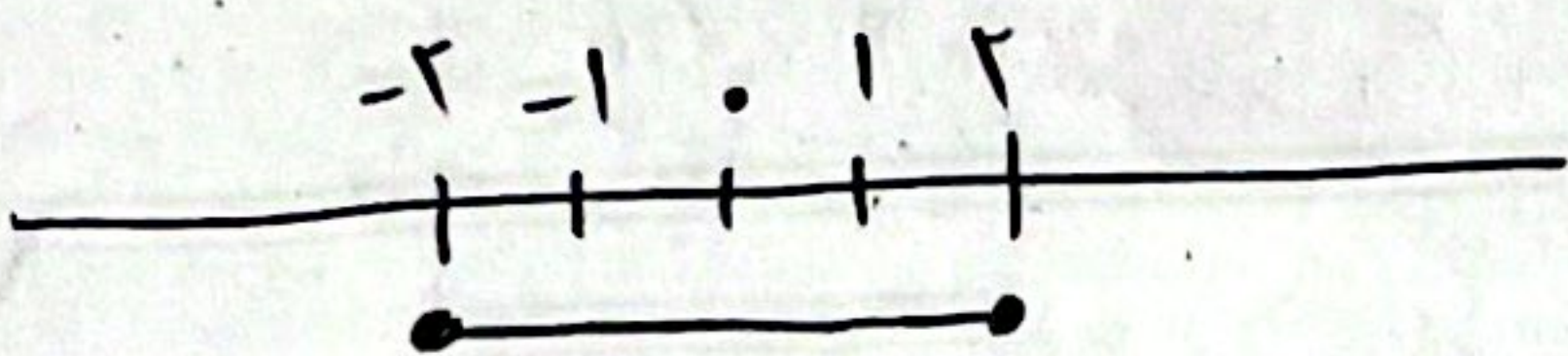
$$f = -4 + 2m' \leq 0$$

$$2m' \leq 4$$

$$m' \leq 2$$

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

$$اختلاف = 1 + 1 = 2$$



$$f - x^2 \geq 0$$

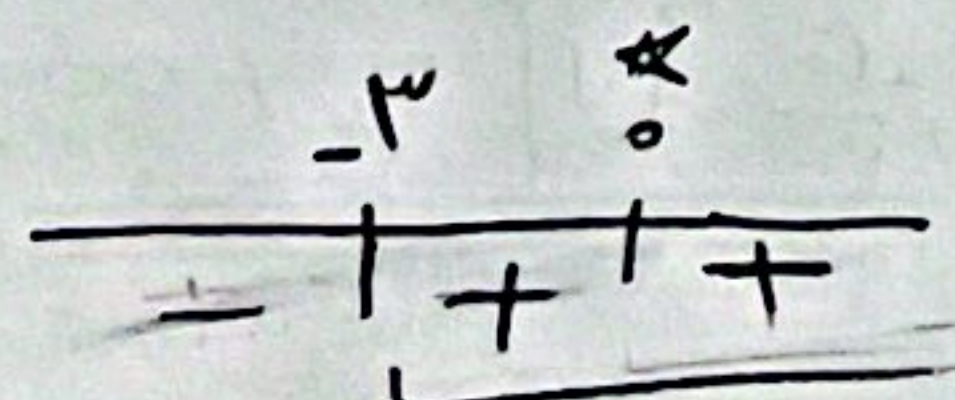
$$x^2 \leq f$$

$$-2 \leq x \leq 2$$

$$\begin{aligned} x \in \mathbb{Z} &\rightarrow [x] + [-x] = 0 \\ x \notin \mathbb{Z} &\rightarrow [x] + [-x] = -1 \end{aligned}$$

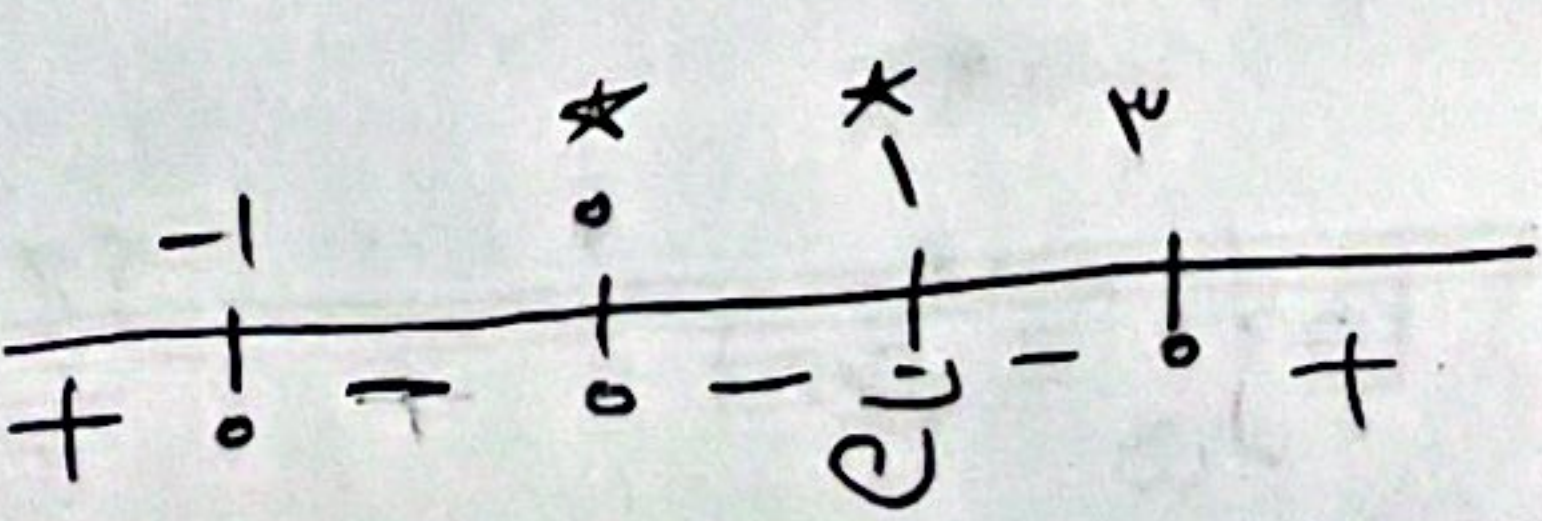
$$\text{الف) } x^3 + 3x^2 \geq 0$$

$$x^2(x + 3) \geq 0$$



$$D_f = [-3, +\infty)$$

$$\text{ب) } \frac{(x^2 - 1)(x^3 - 3x^2)}{x^3 - 1} \geq 0 \rightarrow x^2(x - 3) \geq 0$$



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

$$\text{الف) } |x - 2| \geq 3 \xrightarrow{U} \begin{aligned} x - 2 &\geq 3 \\ x &\geq 5 \end{aligned}$$

$$\begin{aligned} x - 2 &\leq -3 \\ x &\leq -1 \end{aligned}$$

$$D_f = (-\infty, -1] \cup [5, +\infty)$$

$$\text{ب) } |2 - x| \leq 4 \xrightarrow{U} -4 \leq 2 - x \leq 4$$

$$x \leq 6$$

$$x \geq -2$$

$$D_f = [-2, 6]$$

$$\text{الف) } 1 - x/|x| \geq 0 \xrightarrow{U} \begin{aligned} x &\geq 0 \quad I \\ 1 - x^2 &\geq 0 \\ x^2 &\leq 1 \\ -1 &\leq x \leq 1 \quad II \end{aligned}$$

$$I \cap II \rightarrow [0, 1]$$

$$\begin{aligned} x &< 0 \quad I \\ 1 + x^2 &\geq 0 \\ x^2 &\geq -1 \rightarrow \text{همواره برقرار} \end{aligned}$$

$$I \cap II = (-\infty, 0)$$

$$(-\infty, 1] = D_f$$

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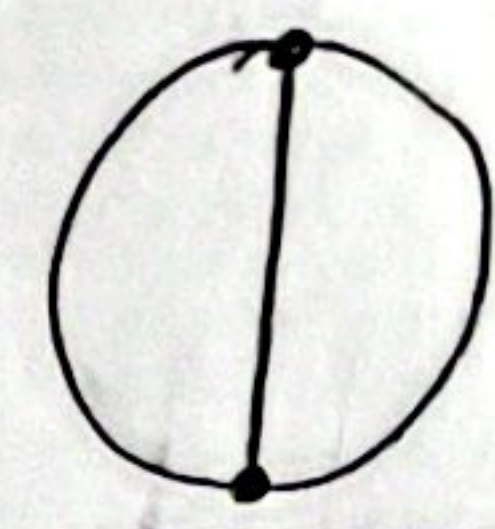
ب) $|x-5| - 1 > 0$
 $|x-5| < 2$
 $-2 < x-5 < 2$
 $x < 7$

$D_f = (3, 7)$

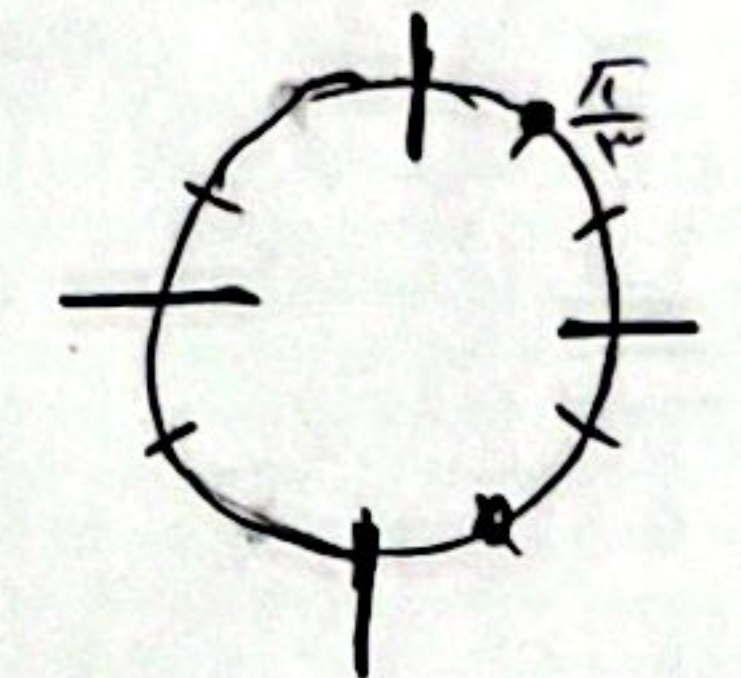
صورت سوال را انتخاب نداشتی!
 $\sqrt{3-1n-5} - 1$
 $\sqrt{3-1n-5} - 1 \neq 0$

✓

الف) $\cos x \neq 0$ $D_f = R - \{k\pi + \frac{\pi}{2}\}$



ب) $\cos x \neq \frac{1}{2}$

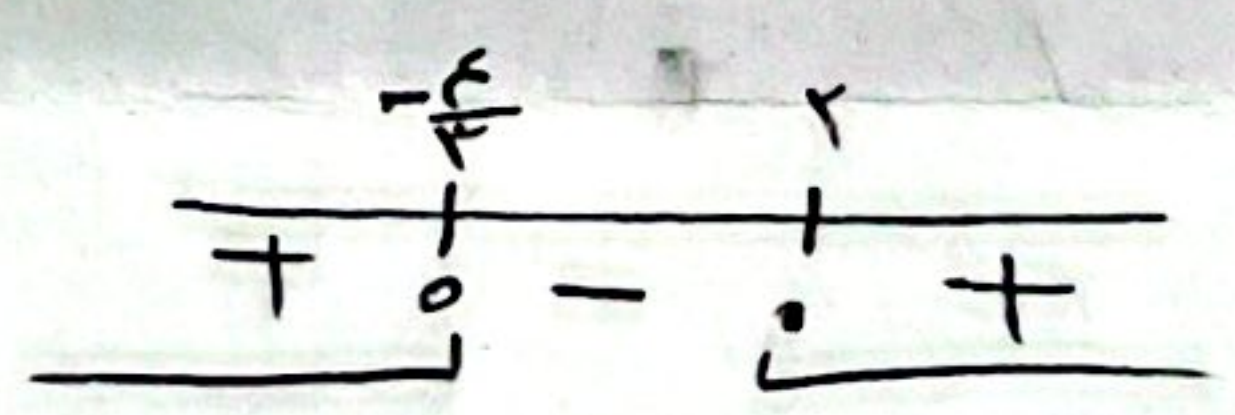


$D_f = R - \{2k\pi \pm \frac{\pi}{3}\}$

الف) $|2x+1| \neq |x+3|$
 $4x^2 + 4x + 1 \neq x^2 + 6x + 9$
 $3x^2 - 2x - 8 \neq 0$
 $\Delta = 4 + 96 = 100$
 $x = \frac{2 \pm 10}{6} = \frac{12}{6} = 2$ or $x = \frac{-8}{6} = -\frac{4}{3}$

$D_f = R - \{-\frac{4}{3}, 2\}$

ب) $|2x+1| \geq |x+3|$
 $4x^2 + 4x + 1 \geq x^2 + 6x + 9$
 $3x^2 - 2x - 8 \geq 0$



$D_f = (-\infty, -\frac{4}{3}] \cup [2, +\infty)$

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$\log_{0.15}^{(2x-1)} \geq 0$
 $\log_{0.15}^{(2x-1)} \leq 1$
 $2x-1 \leq 0.15$
 $x \leq 0.075$

$2x-1 > 0$
 $x > \frac{1}{2}$

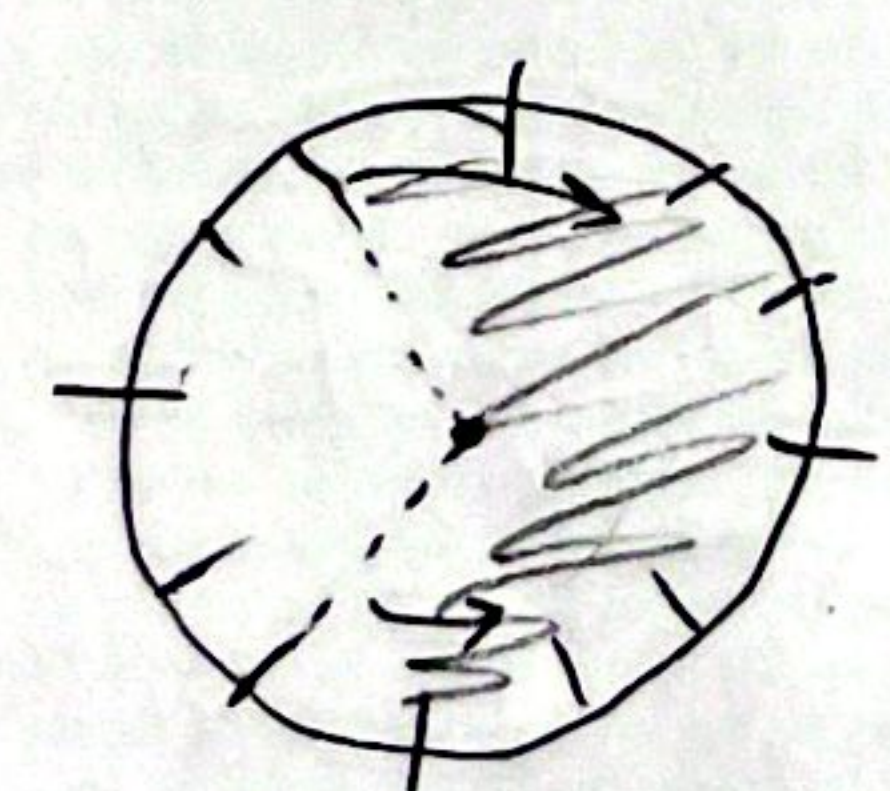
$D_f = (1, 3]$

$1, 3, 5$

$\cap \rightarrow D_f = [3, +\infty)$

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الف) $2\cos x + 1 > 0$
 $\cos x > -\frac{1}{2}$

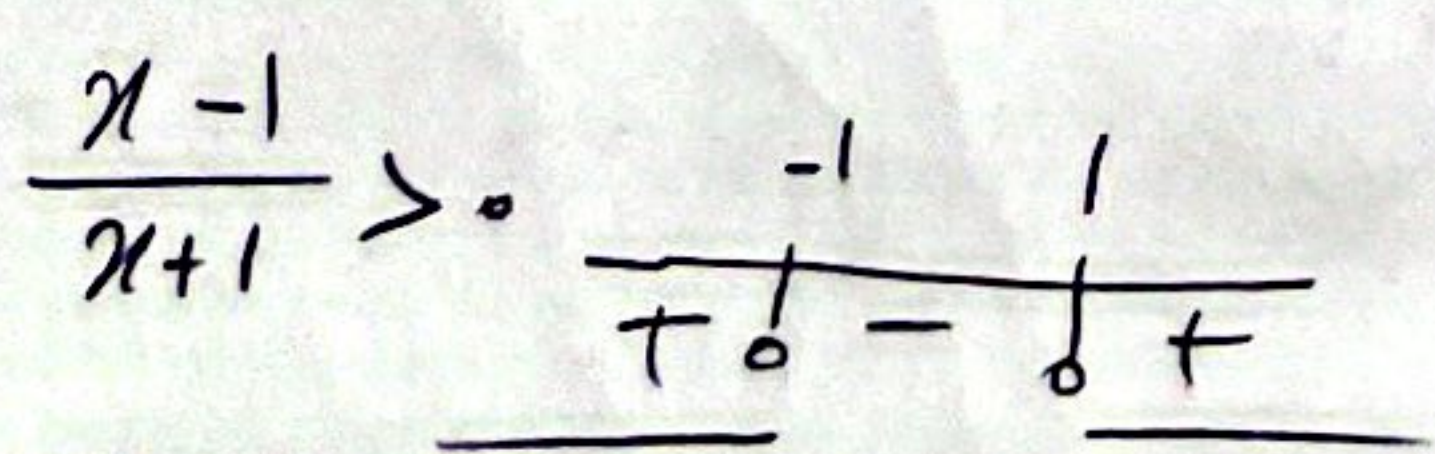


$D_f = (2k\pi - \frac{2\pi}{3}, 2k\pi + \frac{2\pi}{3})$

$1, 2, 5$

ب) $\frac{x-1}{x+1} \geq 1$

$\frac{x-1-x-1}{x+1} \geq 0$
 $\frac{-2}{x+1} \geq 0$



$D_f = (-\infty, -1)$

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$$4- \text{ب}) \quad 3 - |n-5| \geq 0 \rightarrow |n-5| \leq 3 \rightarrow -3 \leq n-5 \leq 3 \rightarrow 2 \leq n \leq 8$$

$$\sqrt{3 - |n-5|} - 1 \neq 0 \rightarrow \sqrt{3 - |n-5|} \neq 1 \rightarrow 3 - |n-5| \neq 2 \rightarrow |n-5| \neq 2 \rightarrow n \neq 3, 7$$

$$D_f = [2, 8] - \{3, 7\} = [2, 3) \cup (3, 7) \cup (7, 8]$$

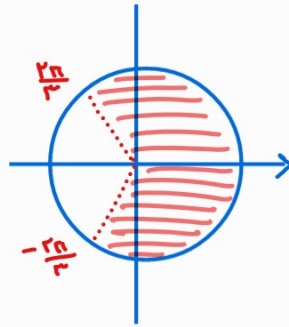
$$9) \log_{1/5} \log_5^{2n-1} \rightarrow 2n-1 > 0 \rightarrow n > \frac{1}{2}$$

$$\log_5^{2n-1} > 0 \rightarrow 2n-1 > 0 \rightarrow 2n-1 > 1 \rightarrow n > 1$$

$$\log_{1/5} \log_5^{2n-1} \geq 0 \xrightarrow[\text{مستود!}]{\text{منجانبه دوا}} \log_5^{2n-1} \leq 5 \rightarrow \log_5^{2n-1} \leq 1 \rightarrow 2n-1 \leq 5 \rightarrow 2n \leq 6 \rightarrow n \leq 3$$

$$\hookrightarrow D_f = (1, 3]$$

$$10- \text{الف}) \quad 2C \cdot \sin u + 1 > 0 \rightarrow C \cdot \sin u > -\frac{1}{2}$$



$$\rightarrow D_f = (2k\pi - \frac{\pi}{6}, 2k\pi + \frac{\pi}{6})$$