

17, 25

B

ما ندره كافي

$$a - r = 0 \rightarrow a = r \rightarrow f(x) \sqrt{rx + b}$$

$$rx + b > 0 \rightarrow rx > -b \rightarrow x > -\frac{b}{r} \quad -1$$

$$-\frac{b}{r} = r \rightarrow b = -r^2 \quad \text{D}$$

$$x^2 + rx + 1 - m^2 > 0$$

-2

$$x^2 + rx + 1 - m^2 = (x+1)^2 + 1 - m^2 \quad (x+1)^2 > 0$$

$$1 - (-1) = 2 \quad \text{D} \quad 1 - m^2 = 0 \rightarrow 1 = m^2 \rightarrow m = \pm 1$$

$$I \rightarrow \sqrt{r-x^2} \rightarrow r-x^2 > 0 \rightarrow r > x^2 \rightarrow -(\sqrt{r} < x < \sqrt{r})$$

$$II \rightarrow [x] + [-x] + 1 \neq 0 \rightarrow \text{بما ان } x \in \mathbb{Z} \text{ منطوقه من } \mathbb{Z}$$

$$x \in \mathbb{Z} \rightarrow 0 \quad x \notin \mathbb{Z} \rightarrow -1$$

$$I \cap II = [-\sqrt{r}, \sqrt{r}] \cap \mathbb{Z} = \{-1, 0, 1\}$$

$$\text{الف) } y = \sqrt{x^2 + rx^2} \quad x^2 + rx^2 > 0 \rightarrow x^2(x+r) > 0$$

$$x \mid \begin{array}{c} -r \\ - \end{array} \begin{array}{c} 0 \\ + \end{array} \quad D_y = [-r, +\infty) \quad -3$$

$$\text{ب) } y = \sqrt{\frac{(x^2-1)(x^2-rx^2)}{x^2-1}}$$

$$\frac{(x^2-1)(x^2-rx^2)}{x^2-1} > 0 \quad \begin{array}{l} x^2=1 \rightarrow x=1 \\ x^2=1 \rightarrow x=-1 \end{array}$$

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

$$\text{الف) } y = \sqrt{|x-2|-4}$$

$$|x-2|-4 > 0 \rightarrow |x-2| > 4 \rightarrow \begin{array}{l} x-2 > 4 \\ x > 6 \\ x-2 < -4 \\ x < -2 \end{array} \quad -4$$

$$D_y = (-\infty, -2] \cup [6, +\infty)$$

$$\text{ب) } y = \sqrt{4-|x-2|}$$

$$4-|x-2| > 0 \rightarrow 4 > |x-2| \rightarrow 4 > 2-x > -4 \rightarrow 2 > x > -4$$

$$D_y = [-4, 2]$$

$$| \omega | | g = \frac{\sinh x - 1}{\cosh x}$$

$$\cos x \neq 0$$

$$\rightarrow P_g = R - \left\{ \cancel{r k x} + \frac{x}{r}, \cancel{r k x} + \frac{x}{r} \right\} \quad \text{--- } U$$

ب) $y = \frac{\cos x}{\cos x - 1}$

$$\cos x \neq \frac{1}{x}$$

$$D_y = R - \left\{ \cancel{2k\pi} + \frac{\pi}{p}, 2k\pi + \frac{a\pi}{p} \right\}$$

$$D_y = R - \left\{ \frac{x+1}{x^2} \right\}$$

$|x+1| - |x+2| \neq 0 \xrightarrow{\text{مقدار ۲}} f(x) = x^2 + x + 1 - x^2 - 4x - 4 \neq 0 \quad -1$
 $b^2 - 4ac \rightarrow 1^2 - 4(1)(-1) = 100$
 $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-1 \pm 10}{2} \rightarrow \frac{-1+10}{2} = \frac{9}{2}$
 $\frac{-1-10}{2} = -\frac{11}{2}$
 دقتاً هون عبارت با یکی باید بدست مرادف شد

دقیقاً بدون عبارت با نایمی باید نوشت مرادف

ب) $y = \sqrt{|x+1| - |x-3|} \rightarrow |x+1| - |x-3| \geq 0$ $\xrightarrow{\text{مکان ۲}}$ $x^2 + x + 1 - x^2 - 4x - 9 \geq 0$
 $D_y = (-\infty, -\frac{4}{3}] \cup [\frac{4}{3}, +\infty)$ $\frac{-4}{3}$ $\frac{4}{3}$ $\Delta = b^2 - 4ac$ $\frac{16 - 4(1)(-9)}{4} = 10$ $x^2 - 3x - 8 \geq 0$ $\frac{-b \pm \Delta}{2a} = \frac{3 \pm \sqrt{10}}{2}$ $\frac{-b + \Delta}{2a} = \frac{3 + \sqrt{10}}{2}$ $\frac{-b - \Delta}{2a} = \frac{3 - \sqrt{10}}{2}$

دقت:

$$f(x) = \sqrt{\log_{a, \omega} \log_{a, \omega} (x-1)}$$

$$x-150 \rightarrow |x| \rightarrow \left(x \right) \frac{1}{P}$$

$$\log_a(x-1) > 0 \rightarrow (x-1) > 1 \rightarrow (x) > 2 \rightarrow x > 2$$

$\log_{0.5} \log_{0.5} \log_{0.5} \dots \log_{0.5} (x_n - 1) \geq 0 \rightarrow \log_{0.5} x_{n-1} \rightarrow x_{n-1} \rightarrow x_{n-2} \rightarrow \dots \rightarrow x_2 \rightarrow x_1$
 عبات زیر را می توان نوشت است!
 $(\frac{1}{2} + \infty) \cap (1 + \infty) \cap (2 + \infty) = (2 + \infty)$
 وقتی صبیخه و است صبیخه نامعادله عوض می شود!

c) $y = \log(r \cos x + 1)$ $r \cos x > -1 \rightarrow \cos x > -\frac{1}{r}$

$$D_y \subseteq \left\{ r_k x + \frac{r_k}{\mu}, r_k x + \frac{r_k}{\mu} \right\}$$

$$D_3 = (-\infty, -1) \cup (1, +\infty) \cap (-1, +\infty) = (1, +\infty)$$

$$y = \sqrt{\log \frac{x-1}{x+1}}$$

$$\frac{x-1}{x+1} > 0 \rightarrow \frac{x}{+} \mid \frac{-1}{0} \mid \frac{1}{-} \rightarrow (-\infty, -1) \cup (1, +\infty)$$

$$\log \frac{x-1}{x+1} \Big|_0 \rightarrow \frac{x-1}{x+1} \Big|_0 \rightarrow \frac{x-1-x-1}{x+1} \Big|_0 \rightarrow \frac{-2}{x+1} \Big|_0 \rightarrow (-1, +\infty]$$

$$8 - \text{ب) } |2n+1| - |n+3| \geq 0 \rightarrow |2n+1| \geq |n+3| \xrightarrow{\text{توان}} \sqrt{n^2+2n+1} \geq \sqrt{n^2+4n+9} \rightarrow n^2-2n-8 \geq 0$$

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

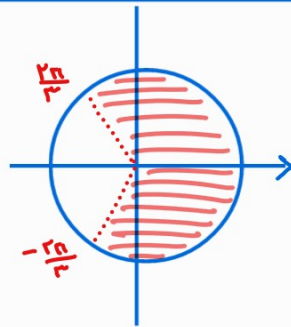
$$9) \log_a \log_a^{2n-1} \rightarrow 2n-1 > 0 \rightarrow n > \frac{1}{2}$$

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

$$\log_a \log_a^{2n-1} \geq 0 \xrightarrow[\text{مناسبه در اوجت عوض!}]{\text{مناسبه در اوجت عوض!}} \log_a^{2n-1} \leq \frac{1}{a} \rightarrow \log_a^{2n-1} \leq 1 \rightarrow 2n-1 \leq a \rightarrow 2n \leq 4 \rightarrow n \leq 2$$

$\hookrightarrow D_f = (1, 2]$

$$10 - \text{الف) } 2C \cdot \sin \theta + 1 > 0 \rightarrow C \cdot \sin \theta > -\frac{1}{2} \rightarrow D_f = (2k\pi - \frac{\pi}{6}, 2k\pi + \frac{\pi}{6})$$



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

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

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