

نیم از بهر دسترس $\star$ از دسترس $\star$ تلف

$$f(x) = \sqrt{(a-x)x^2 + ax + b} \xrightarrow{\text{نسبت}} \sqrt{4+b} \leq 0 \rightarrow b \leq -4$$

$$D_f = [x_0 + \infty) \rightarrow y = ax + b, a - 2 \leq 0 \rightarrow a \leq -2$$

$$f(x) = \sqrt{x^2 + 2x + 2 - m^2} \geq 0 \quad (n+1)^2 + 1 - m^2 \geq 0 \rightarrow 1 - m^2 \geq 0 \rightarrow m^2 \leq 1 \rightarrow -1 \leq m \leq 1$$

$$f(x) = \sqrt{x^2 + 2x + 2 - m^2} \geq 0 \quad \text{مقادیر} \quad (-1) \leq m \leq 1$$

$$f(x) = \sqrt{x^2 - 2x} \rightarrow x^2 \leq x \rightarrow -2 \leq x \leq 2 \rightarrow \text{دارد } (-2, 2) \rightarrow \text{نیم از بهر دسترس} \rightarrow \text{نیم از بهر دسترس}$$

$$f(x) = \sqrt{x^2 + 2x} \rightarrow x^2 \geq -2x \rightarrow x \geq 0 \rightarrow D_f = [-2, +\infty)$$

$$f(x) = \sqrt{\frac{(x-1)(x^2-5x^2)}{x^2-1}} \rightarrow \sqrt{\frac{(x-1)(x+1)(x^2-5x^2)}{(x-1)(x^2+1)}} \rightarrow D_f = [1, \infty) \cup (-\infty, -1]$$

$$f(x) = \sqrt{|x-2|-3} \geq 0 \rightarrow |x-2| \geq 3 \rightarrow x-2 \geq 3 \text{ or } x-2 \leq -3 \rightarrow x \geq 5 \text{ or } x \leq -1 \rightarrow D_f = (-\infty, -1] \cup [5, \infty)$$

$$f(x) = \sqrt{4-|x-2|} \geq 0 \rightarrow |x-2| \leq 4 \rightarrow -4 \leq x-2 \leq 4 \rightarrow -2 \leq x \leq 6 \rightarrow D_f = [-2, 6]$$

$$f(x) = \sqrt{1-x|x|} \rightarrow \begin{cases} x \geq 0 & y = \sqrt{1-x^2} \rightarrow x^2 \leq 1 \rightarrow -1 \leq x \leq 1 \\ x < 0 & y = \sqrt{1+x^2} \end{cases} \rightarrow D_f = [-1, 1]$$

$$f(x) = \frac{1}{\sqrt{2-|x-1|}-1} \neq 0 \rightarrow \sqrt{2-|x-1|} \neq 1 \rightarrow 2-|x-1| \neq 1 \rightarrow |x-1| \neq 1 \rightarrow x-1 \neq \pm 1 \rightarrow x \neq 2 \text{ or } x \neq 0 \rightarrow D_f = \mathbb{R} - \{0, 2\}$$

$$f(x) = \frac{\sin^2 x - 1}{\cos x} \rightarrow \sin^2 x \neq 1 \rightarrow \cos x \neq 0 \rightarrow x \neq \frac{\pi}{2} + k\pi \rightarrow D_f = \mathbb{R} - \{\frac{\pi}{2} + k\pi\}$$

$$f(x) = \frac{\cos x}{2\cos x - 1} \rightarrow \cos x \neq \frac{1}{2} \rightarrow x \neq \pm \frac{\pi}{3} + 2k\pi \rightarrow D_f = \mathbb{R} - \{\pm \frac{\pi}{3} + 2k\pi\}$$

الف) $y \leq \frac{x+r}{|x+1|-|x+r|} \neq 0$

$|x+1| \neq |x+r|$
 $x+1 \neq x+r \quad x \neq r$
 $x+1 \neq -x-r \quad x \neq -\frac{x}{r}$

$D_s R = \{-\frac{x}{r}, r\}$ -1

ب) $y \leq \sqrt{|x+1|-|x+r|}$

$|x+1| \geq |x+r|$
 $x+1 \geq x+r \quad x \geq r$
 $x+1 \leq -x-r \quad x \leq -\frac{x}{r}$

$D_s (-\infty, -\frac{x}{r}] \cup [r, \infty)$

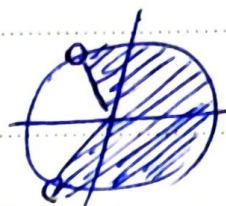
$f(n) \leq \sqrt{\log_{a}^{(n)} a} \geq 0$

منابع منبر
 $\log_a^{n-1} \leq 1 \rightarrow x_{n-1} \leq \Delta \rightarrow x_n \leq r$

$\log_a^{n-1} > 0 \rightarrow x_{n-1} > 1 \rightarrow x > 1$
 $x_{n-1} > 0 \rightarrow x > \frac{1}{r}$
 $x \leq r$
 $x > \frac{1}{r}$
 $\rightarrow D_f (1, r]$

الف) $y \leq \log(r \cos 1) > 0$

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



-10

ب) $y \leq \sqrt{\log \frac{n-1}{n+1}} \geq 0$

$D_s (rk\pi - \frac{r\pi}{r}, rk\pi + \frac{r\pi}{r})$

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

$\frac{n-1}{n+1} \geq 1 \rightarrow \frac{n-1-n-1}{n+1} \geq 0 \rightarrow \frac{-2}{n+1} \geq 0 \rightarrow n+1 \leq -1$
 $(-\infty, -1]$
 $D_s (-\infty, -1)$