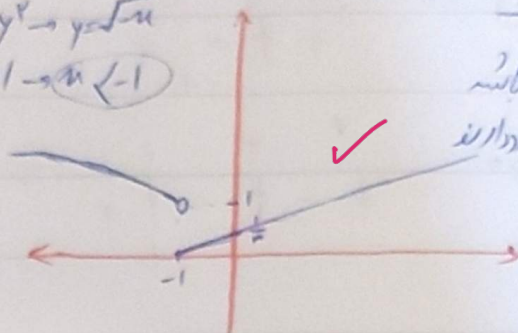


$$n = \begin{cases} ny-1 & y \geq 0 \\ -y^2 & y < 0 \end{cases} \rightarrow n \leq y^2 \rightarrow y \geq \sqrt{n}$$

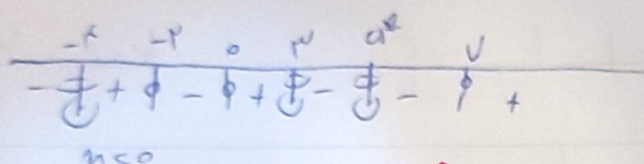
$$ny-1 = n \rightarrow y = \frac{n+1}{n}$$

$$\frac{n+1}{n} \geq 0 \rightarrow n \geq -1$$



۱- تابع $y = \sqrt{x}$
طبق نمودار تابع می باشد
چون خطوط قائم که به خود دارند

(۲)



$$D_f = (-\infty, -2] \cup [0, 3] \cup [4, +\infty)$$

فقط حواست باشد که $x=4$ در دامنه است و $x=2$ در دامنه نیست

$$f(n-2) = 0 \rightarrow n = -2, 0, 4$$

نکته که در بازه است آفده نیست

$$\frac{x^2 - 2x + 2}{n(n-2)(n+2)}$$

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

(۲)

$$\frac{x^2 - 2x + 2}{n(n-2)(n+2)} \geq 0 \rightarrow \frac{-2}{-} + \frac{0}{+} - \frac{2}{+}$$

$$(-2, 0) \cup (2, +\infty)$$

$$\frac{n-2}{(n-2)(n+2)(n+4)} \geq 0 \rightarrow \frac{-2}{-} + \frac{2}{+} +$$

$$D_f = (-2, +\infty) - \{2\}$$

۴- الف

(۲)

$$y = \frac{x^2 + 1}{x - 2[n]}$$

$$x = 2[-n] \rightarrow x - n < 2 \Rightarrow D_f = \mathbb{R} - \{-2, -4\}$$

$$n + |n| \geq 0 \rightarrow \mathbb{R}^+ \quad n(n+1)(n-1) \geq 0 \rightarrow \frac{-1}{-} + \frac{0}{+} - \frac{1}{+}$$

$$\mathbb{I} \cap \mathbb{II} \rightarrow D_f = [1, +\infty)$$

۵- الف

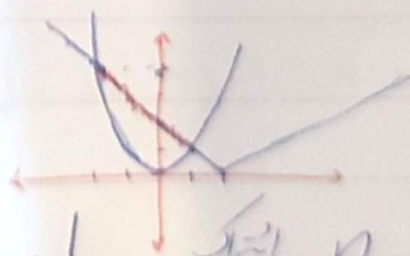
(۲)

$$f(x) = \frac{\sqrt{|x-1|} - x^2}{|x|-1}$$

$$|x| \neq 1 \rightarrow x \neq \pm 1$$

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

$$SCBO \rightarrow [-2, 1]$$

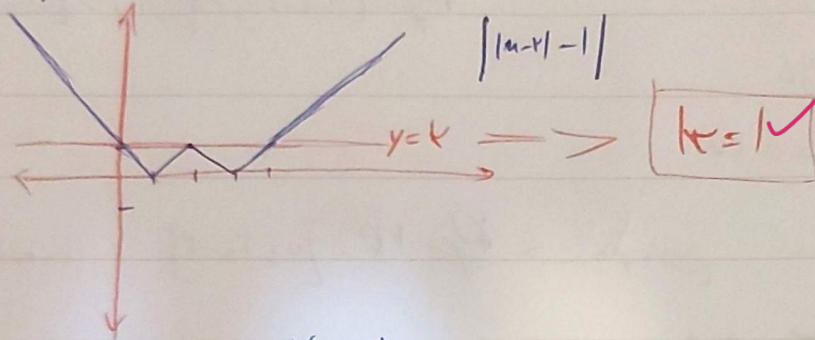


$$D_f = [-2, 1] - \{1\}$$

$$(n-r)[n-r] \geq 0 \quad \begin{array}{c} r^* \\ + \quad 0 \quad + \\ \quad \quad \quad + \end{array} \Rightarrow D_f = 1R \quad \text{9-الف) (r)}$$

$$|n-1|[n-r] \geq 0 \quad \begin{array}{c} r^* \\ - \quad 0 \quad + \\ \quad \quad \quad + \end{array} \Rightarrow D_f = [r_0 + \infty) \cup \{ \} \quad \text{(-) (r)}$$

$$y = \frac{1}{||n-r|-1|-k} \rightarrow ||n-r|-1| = k \quad \text{log r} \quad k=1 \quad \text{v} \quad \text{(r)}$$



$$f(n) = \frac{\frac{(n+1)(n+r)}{(n+1)(n+r)}}{\frac{n+1}{n-1}} \quad \frac{n+1}{n-1} \neq 0 \rightarrow n \neq -1 \quad \text{-1} \quad \text{(r)}$$

$$(n+1)(n+r) \neq 0 \rightarrow n \neq -1, -r$$

$$n-1 \neq 0 \rightarrow n \neq 1$$

$$n=r \rightarrow n^2 - 6n + 9 \leq 0 \rightarrow (n-r)^2 \leq 0 \quad n=3 \quad \text{✓} \quad \text{2-ب) (r)}$$

$$y = \log \log_n^{\frac{1}{n+1}} \quad \begin{array}{ccc} n+1 > 0 & n+1 \neq 1 & n > 0 \\ (n > -1) & (n \neq 0) & (n > 0) \end{array} \quad \text{9} \quad \text{(r)}$$

$$\log_n^{\frac{1}{n}} > 0 \rightarrow \text{0 < n < 1} \quad \text{نكر مكافئ} \Rightarrow D_f = (0, 1) \quad \text{✓}$$

$$-\frac{r}{n} \leq n^2 - 1 \leq \frac{r}{n} \rightarrow \frac{-\frac{r}{n}}{n^2} \leq \frac{r}{n} \rightarrow -\frac{r}{n^3} \leq \frac{r}{n} \quad \text{10} \quad \text{(r)}$$

$$D_{f(n^2-1)} = \left[-\frac{r}{n^3}, \frac{r}{n} \right] \quad \text{✓}$$

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