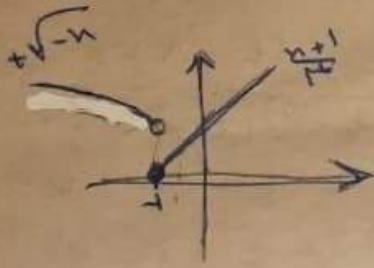


دینا سقایی



سوال ۱ - تابع $y = \frac{n+1}{x}$ هست

$$\begin{cases} xy-1=n \\ \rightarrow \frac{n+1}{x}=y \rightarrow n=1 \rightarrow D_f = [-1, +\infty) \\ n^2 = -y^2 \rightarrow -n = y^2 \end{cases}$$

n های منفی جزء تابعه شنه

$$\rightarrow y^2 = (+) \sqrt{-n} > 1$$

$$\rightarrow -n > 1 \rightarrow n < -1 \quad D_f = (-\infty, -1)$$

	-4	-2	0	2	4	6	7
n	-	-	-	+	+	+	+
$f(n-2)$	-	-	+	+	+	+	+
$f(n)$	-	+	+	+	-	+	+
	-	+	-	+	-	-	+

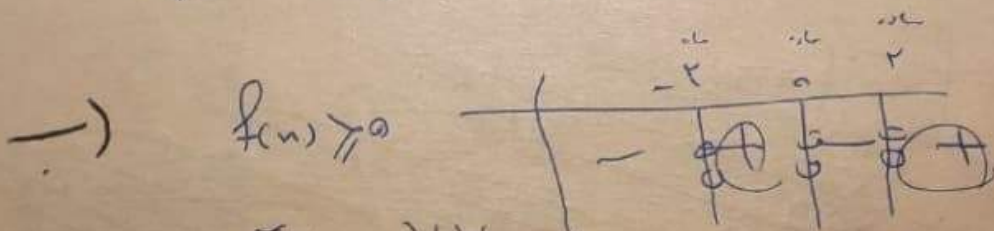
سوال ۲ -

$$\frac{n f(n-2)}{f(n)} \geq 0$$

$$D_g = (-4, -2] \cup (0, 2) \cup [7, +\infty)$$

سوال ۳ - $x(n^2-2) = 0$: $n=0$ یا $n=\pm 2$

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



$$D_{f(n)} = (-2, 0) \cup (2, +\infty)$$

	-2	2
$n-2$	-	- 0 +
$(n^2-2)(n^2+2)$	+	0 - 0 +
	-	0 + 0 +

$$D_f = (-2, 2) \cup (2, +\infty)$$

(الف) ع
 $n^2 = 6$

$$t^2 - 2t - 1 = 0$$

$$(t-1)(t+1) = 0$$

$$t = -1 \quad \times$$

$$n = \pm \sqrt{t} \quad t = 1 = n^2$$

نبا : $K \cdot 2[-n] = 0$

$$1 = 2[-n] \Rightarrow [-n] = \frac{1}{2}$$

نبا : $1 \leq -n < 2 \rightarrow -1 \leq n < -2$

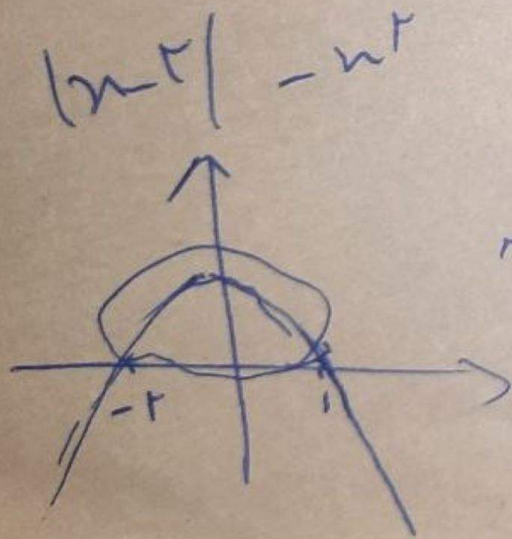
$$D_f = \mathbb{R} - [-2, -1]$$

نبا : $n(n^2-1) \geq 0 \rightarrow$

	-1	0	1
$n(n^2-1)$	-	0	+

نبا : $\sqrt{|n|+n} = 0 \rightarrow |n| = -n \rightarrow$ n ناصبة
يعني n ناصبة

$$D_f : \begin{cases} [-1, 0] \cup [1, +\infty) \\ (0, +\infty) \end{cases} \xrightarrow{n} D_f : [1, +\infty)$$



$$\rightarrow [-r, 1]$$

$r_{\text{min}} \quad \text{or} \quad |n|=1 \rightarrow n = \pm 1$

$$[-r, 1) - \{1\}$$

$$(1, \infty)$$

$$\sqrt{(n-r)[n-r]} \geq 0$$

$$[n-r]$$

$$D_f = \mathbb{R}$$

4-الف

		r	r
$n-r$	-	ϕ	ϕ
	-	ϕ	ϕ
	+	ϕ	ϕ

~~4-ب~~

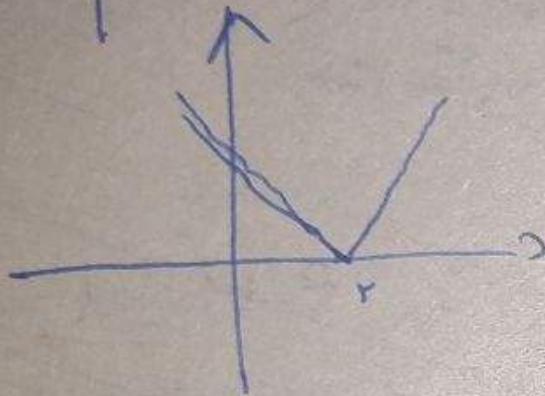
			r	r
$[n-r]$	+	ϕ	+	+
	-	-	ϕ	+
	ϕ	ϕ	-	+

4-ب

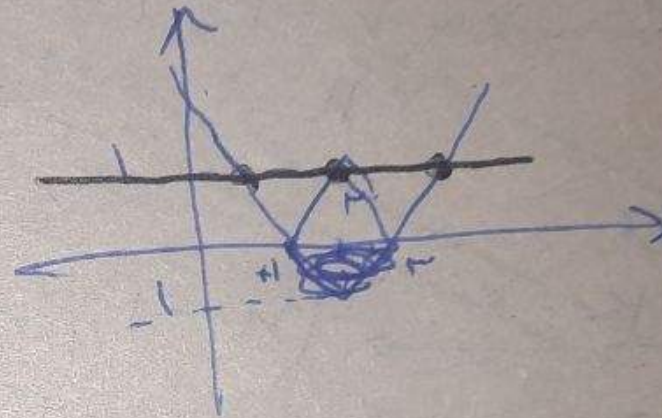
$$D_f = \{ \text{scribbled out} \} \cup [r, +\infty)$$

§ 17

$$\Phi_{\mu} : \|u - \mu\| = K$$



$$K=1$$



$$\underline{n_1} = (n+2)(n+1) = 0 \rightarrow n = -1$$

$$\rightarrow n = -2$$

— ✓

$$\underline{n_2} \rightarrow n+1 = 0 \rightarrow n = -1$$

$$\underline{n_3} : n-1 = 0 \rightarrow n = 1$$

CTD

$$D_f = 18 - 5 - 4 - 1 - 1 \rightarrow n = 3$$

$$n^2 - 4n + 9 = 0$$

$$(n-3)^2 = 0 \rightarrow n = 3$$

is this min ✓
 $n = 3$

$$\begin{aligned}
 n+1 > 0 &\rightarrow n > -1 \\
 n > 0 &\rightarrow n > -1
 \end{aligned}
 \left\{ \begin{array}{l} n_0 \\ \end{array} \right. \quad \text{--- 9}$$

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

$$\frac{-\omega \pm \sqrt{\omega^2 - 4}}{2} \rightarrow n \in \mathbb{R}$$

--- 10

$$x^2 - 4 < 0$$

$$\rightarrow D_f = \left[-\frac{2}{\sqrt{4}}, \frac{2}{\sqrt{4}} \right]$$
