

$$f(x_{n+1}) + f(x_{n+2}) = 2x_{n+1} + f(x) \xrightarrow{x=1} f(x) \leq 2$$

①

$$y = \sqrt{f(x) - x^2} \quad \text{②} \quad f(x_{n+1}) + f(x_{n+2}) = 2x_{n+1} + f(x) \Rightarrow$$

$$y = \sqrt{4 - x^2} \Rightarrow R_f \in [0, \frac{1}{2}]$$

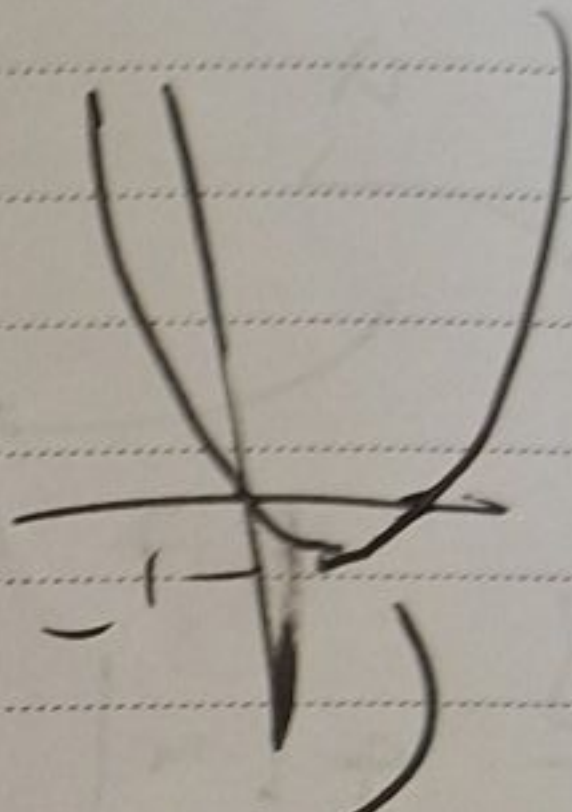
$$f(x) = \frac{x^3 - \varepsilon x}{x+2} = \frac{x(x-\varepsilon)(x+\varepsilon)}{x+2} = x^2 - 2x$$

$$R_f \subset \mathbb{R} - \{a, b\}$$

$$R_f \subset (c, \infty) - \{1\}$$

$$c = -1$$

$$x = -2 \Rightarrow y = 1$$



$$R_f \subset [-1, \infty) - \{1\}$$

$$a = -2$$

$$b = 2$$

$$\frac{x^3 - \varepsilon x}{x+2} = 1 \Rightarrow x = \varepsilon \Rightarrow \emptyset \quad f \in \mathbb{R} - \{1, \varepsilon\}$$

$$f\left(\frac{2}{-c}\right) = f(-1) = \frac{-1 + \varepsilon}{1} = 2$$

$$y = \sqrt{x^3 + ax^2 + bx - 1} \Rightarrow \emptyset \in [a, b]$$

③

$$y = \sqrt{(x-1)^3} = \sqrt{x^3 - 3x^2 + 3x - 1} \Rightarrow a = -4 \quad b = 1$$

~~Handwritten scribbles and crossed-out text.~~

$$f \in [-4, 1] \Rightarrow R_f \in [-1, 1]$$

۴

۱۴.۱
 $y_1 = \left(\frac{u+1}{1-u} \right)^{\frac{1}{a}}$

$y_2 = \frac{a u^{r-1}}{n^{r+b}}$

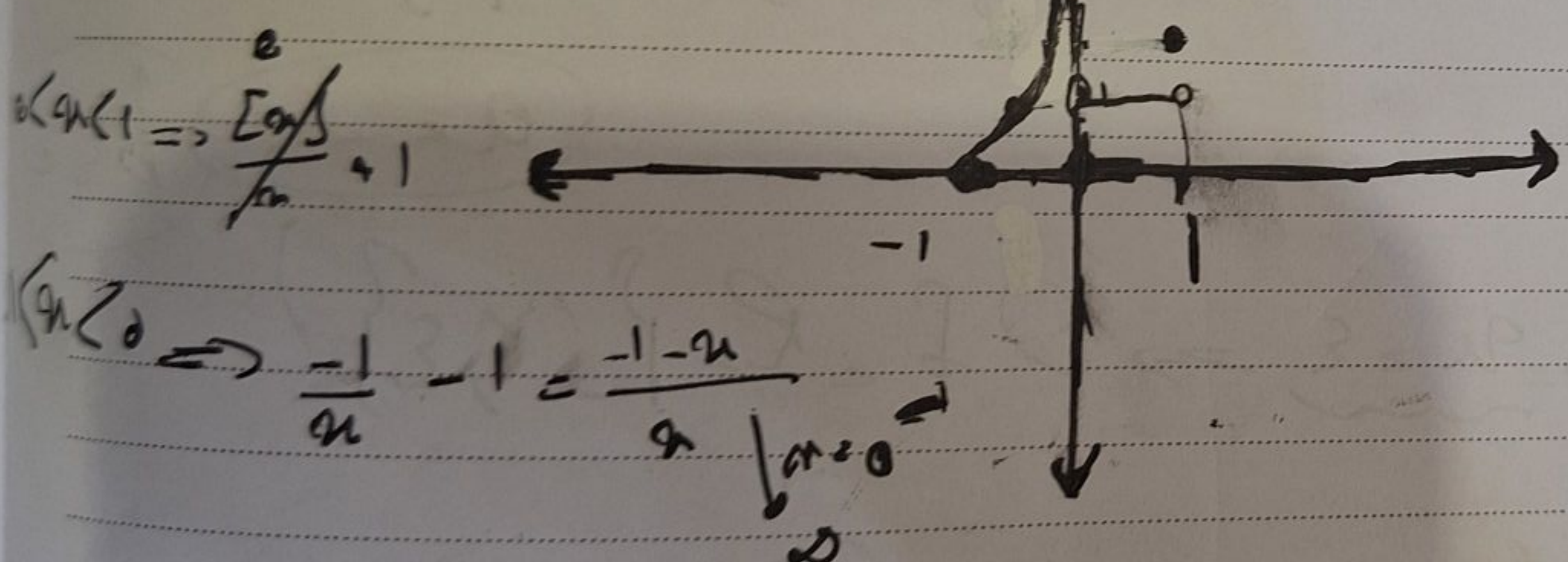
$Oy_1 = Oy_2$

$u \neq 1, \frac{u+1}{1-u} > 0$
 $u = [-1, 1)$

$[-\frac{1}{b}, a) \subset [-1, 1) \Rightarrow a < 1, b > 1$

$\frac{[a]}{n} \approx \frac{1}{n}$

۵



۶

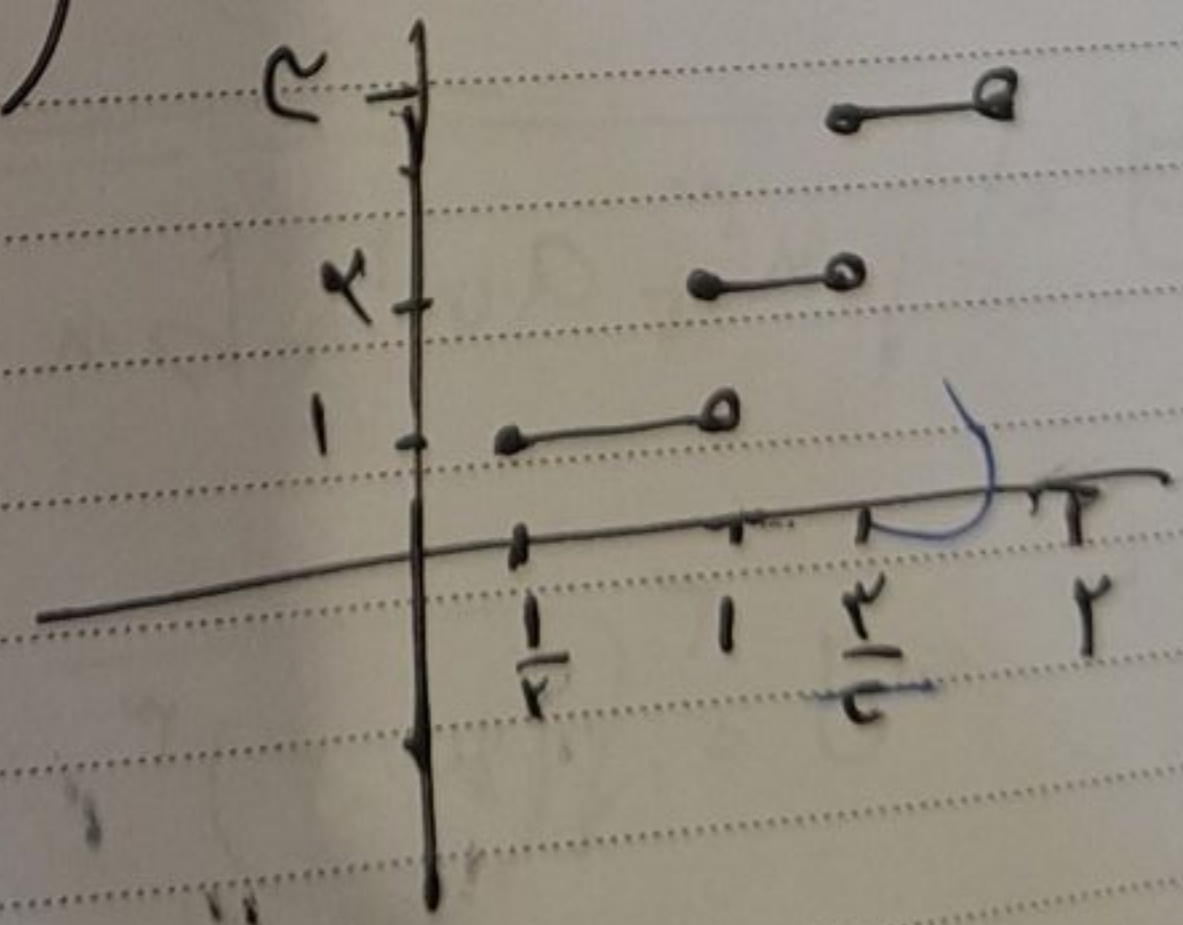
$y \in [u] \cup [u + \frac{1}{n}] \rightarrow \text{در } [\frac{1}{n}, 1)$

$\frac{1}{n} < u < 1 \rightarrow y = 1$

$1 < u < \frac{1}{n} \rightarrow y = 1$

$\frac{1}{n} < u < 1 \rightarrow y = 1$

$u < 0, \frac{1}{n}$



$$\frac{|a+1|}{|a+1|} < 1$$

31 Aug 2022

۳ صفر ۱۴۴۴

۹

شهریور

چهارشنبه

۷

$$|x-1| + |y-1| = 3$$

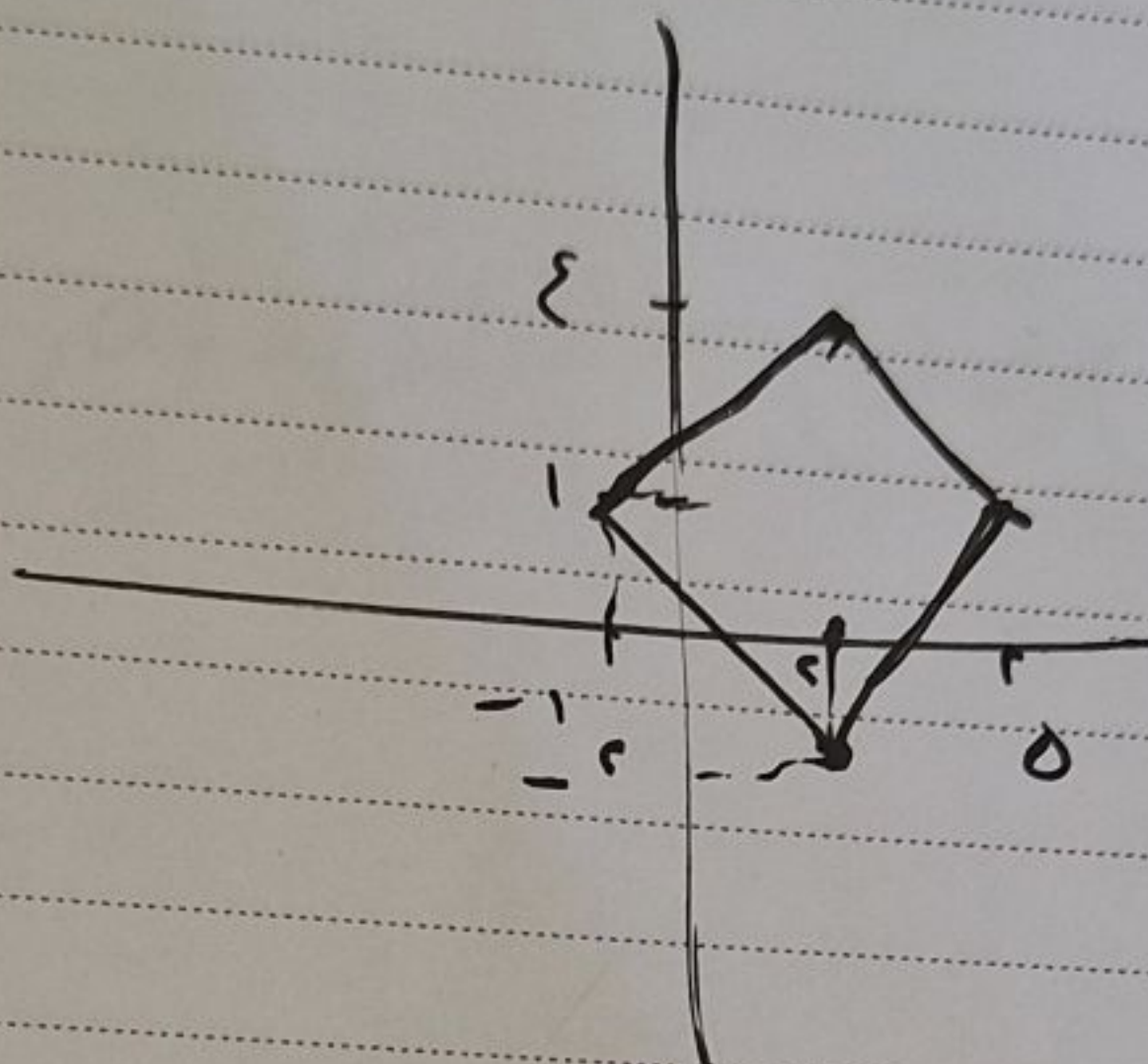
$$x=2$$

$$y=1$$

از هر طرف ۱ واحد

فاصله

کاریم

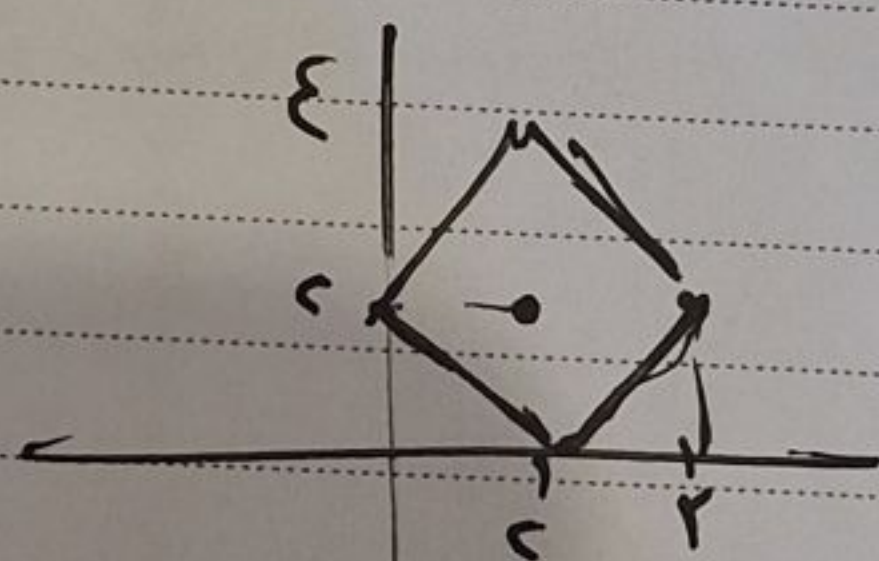


۸

$$|x-1| + |y-2| = 1$$

$$x=1$$

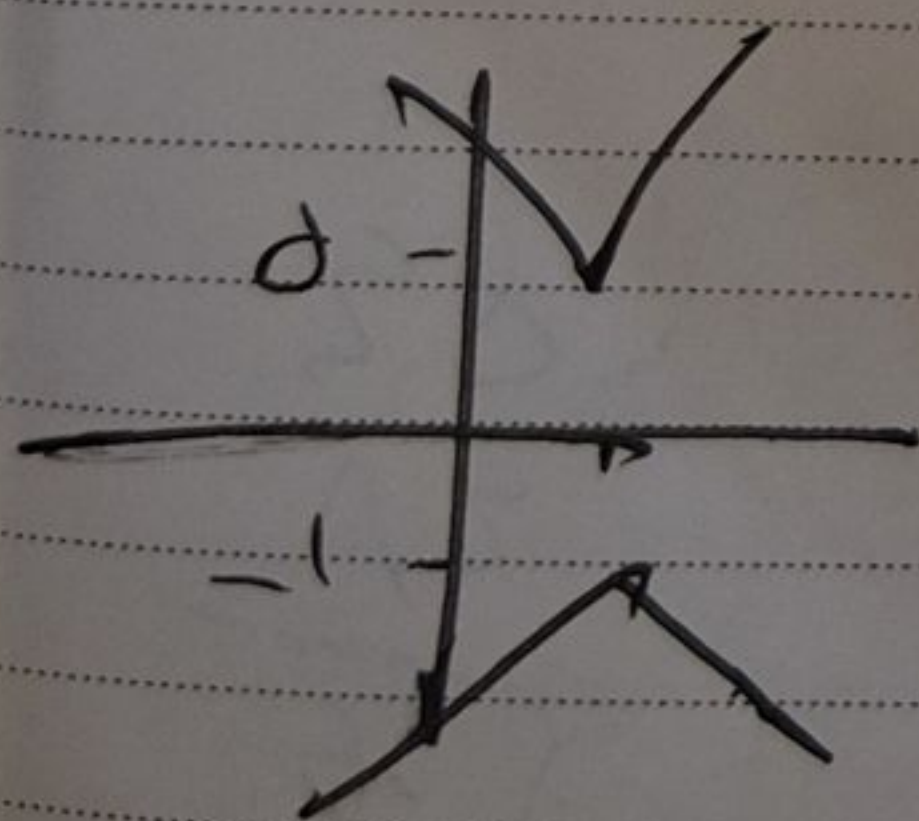
$$y=2$$



۹

$$|x-1| + |y-1| = 3 \quad \text{---} \quad |x-1| + |y-1| = 3$$

$$y=1 \quad x=1$$



از ابتدا و این نقطه ادامه می دهیم

$$y = 3x + |a+b| \quad \begin{matrix} a+b > 0 \rightarrow (1+a)x+b \\ a+b < 0 \rightarrow (1-a)x-b \end{matrix}$$

بازرسی ها را باید
به شدت آبد
باشد

۱۵

$$-(c-a)(a-c)$$

$$a \in (-c, c)$$

$$b < 0$$