

نام خدا

اصغر مهدی اسماعیلی فرزند دوازدهم سپهر A

الف) $\sum_{k=1}^n k^2 \rightarrow \frac{1}{3}k^3 \rightarrow D_f(m, n) = \left[-\frac{1}{3}, \frac{1}{3}\right]$

ب) $\sum_{k=1}^n k \rightarrow \frac{1}{2}k^2 \rightarrow D_f = [-1, -1/2]$

$x \rightarrow x-2: x-2+\sqrt{x-2}=y$

$x \rightarrow y:$

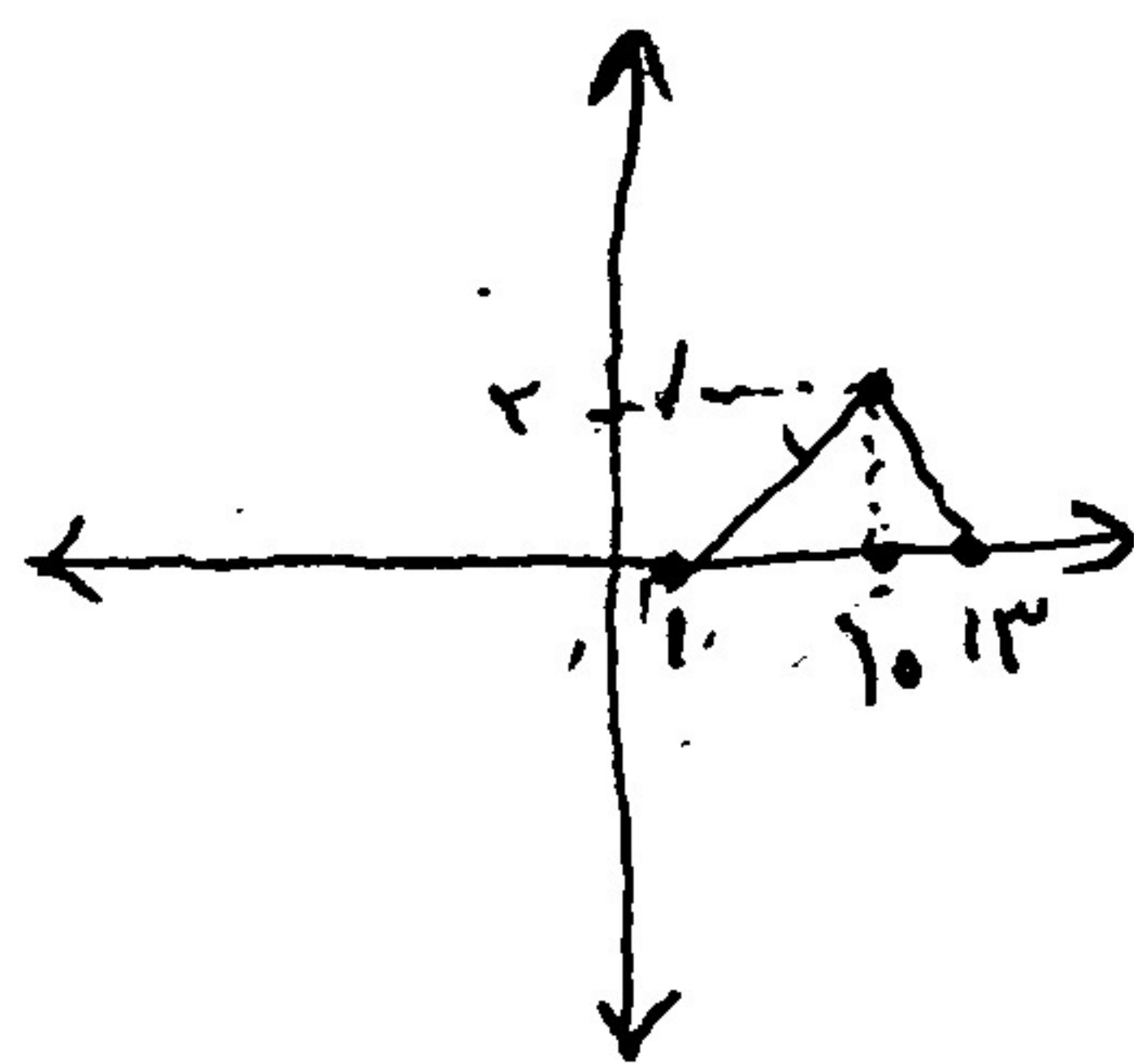
عوض کردن x در y
تأییدی به این کار نیست چون تابع f سینسار را
تا جایی که نقطه‌ای قطع می‌کند به f^{-1} قطع می‌کند

$x-2+\sqrt{x-2}=x$

$\rightarrow x-2=x \rightarrow x=2$

$A \mid \begin{matrix} 1 \\ 1 \end{matrix} \quad y=2$

مسئله تابع $\rightarrow A \mid \begin{matrix} 1 \\ 1 \end{matrix} \rightarrow A' \mid \begin{matrix} 1 \\ 2 \end{matrix}$
مسئله تابع $\rightarrow x=0 \rightarrow x=1$
مسئله تابع $\rightarrow x=1 \rightarrow x=1$



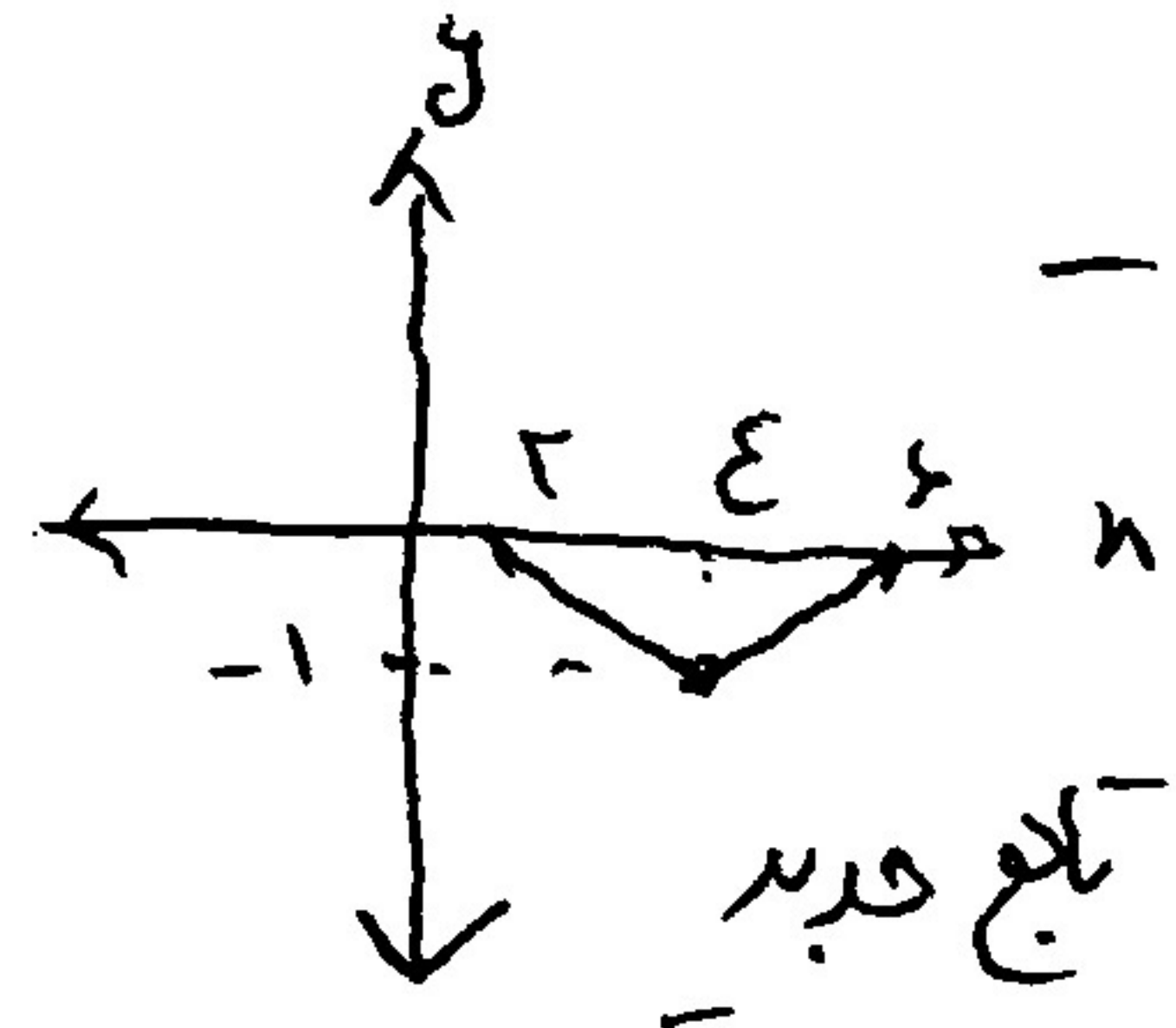
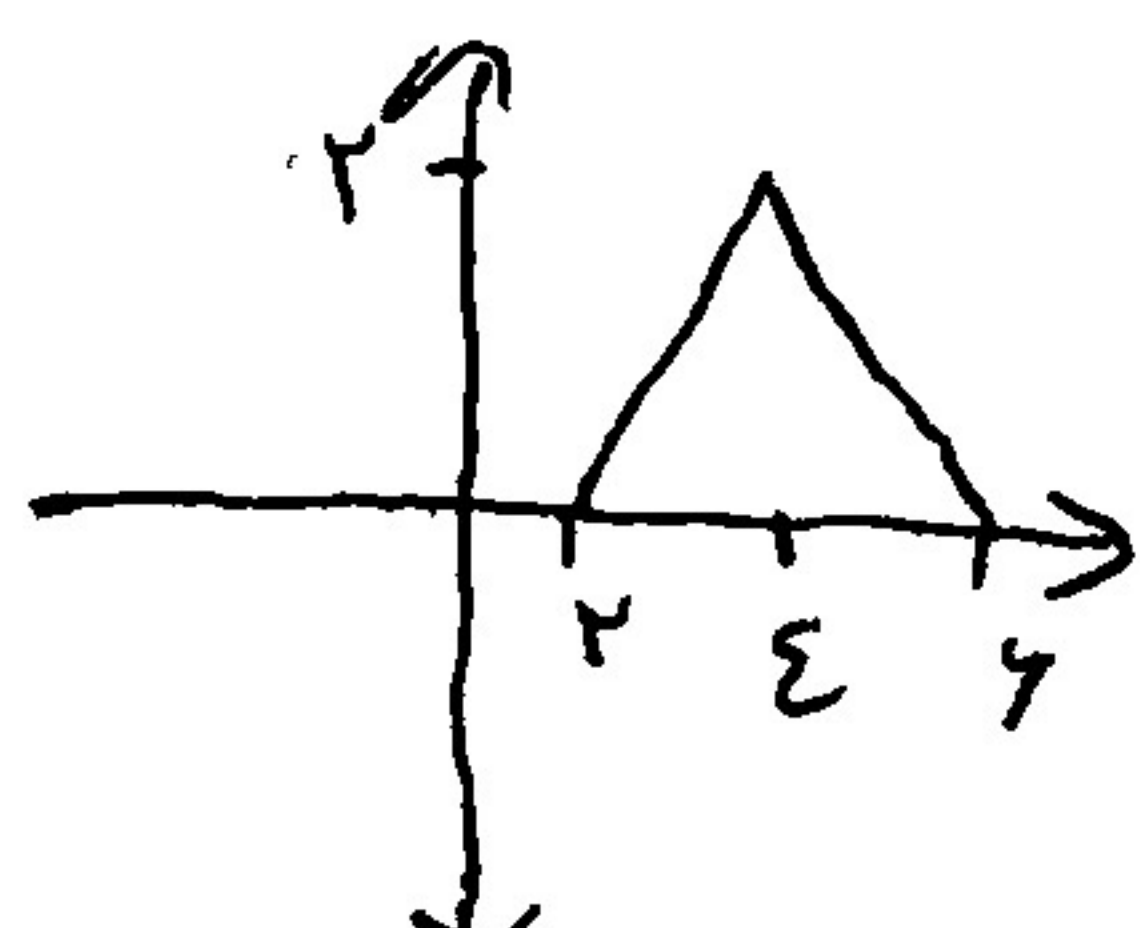
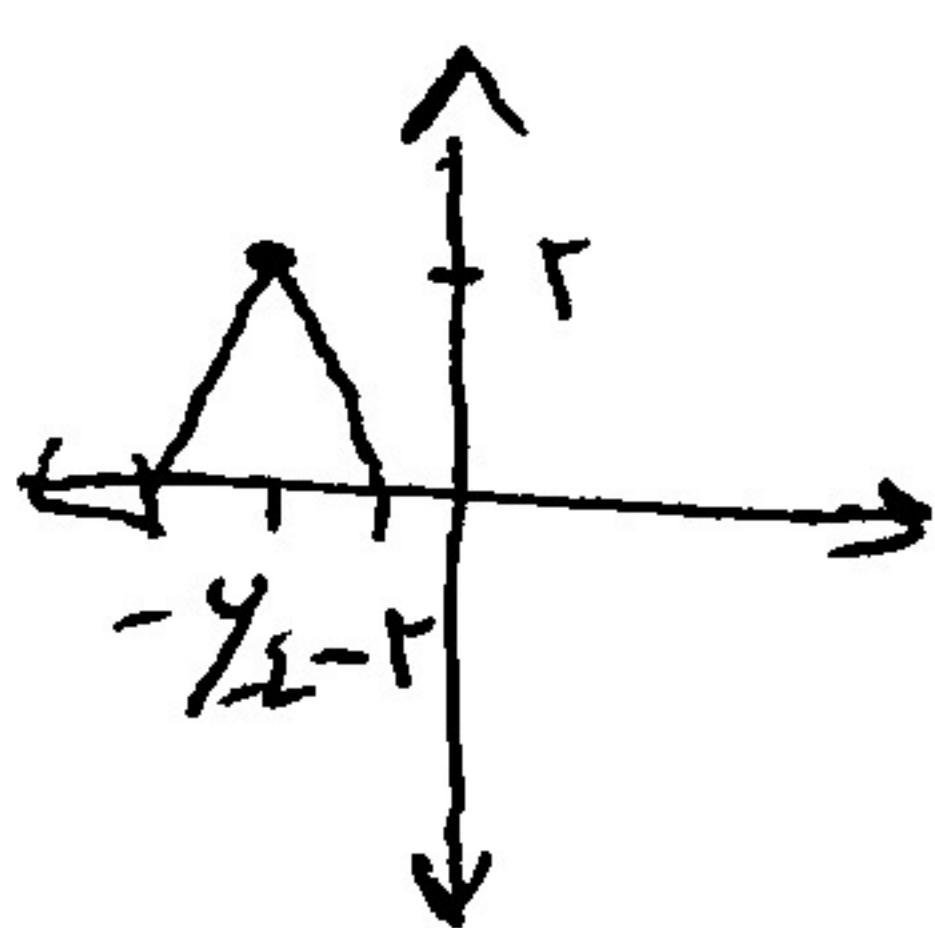
$S = \frac{12 \times 2}{2} = 12$

$A \mid \begin{matrix} 1 \\ -1 \end{matrix} \rightarrow A' \mid \begin{matrix} x+a \\ -y+a \end{matrix} \xrightarrow{\substack{x=r+a \\ y=a-y}} a-y = 1+r-a-1 \rightarrow a=-5$

$x \rightarrow x+y: -f(x+y)$

$x \rightarrow -x: -f(x-y)$

$y \rightarrow -\frac{1}{2}y: \frac{1}{2}f(x-y)$



مسئله تابع $f(m-1)$ و $f(m)$
 $\begin{cases} -1 \rightarrow 0 \\ 1 \rightarrow 1 \\ 5 \rightarrow 2 \end{cases}$

$(n+2)f(m-1) \rightarrow 0$

$P(x) \mid \begin{matrix} -1 & 0 & 1 & 2 \\ + & 0 & - & 0 \\ 1 & 1 & 1 & 1 \end{matrix}$

$D = [-5, 0] \cup [1, 2]$

$x \rightarrow x+k$

$y \rightarrow y-3$

$f=g$

$\rightarrow |2m+2k-3|-2 = |2n-3|+1$

$g(x) = |2m+2k-3|-2 \xrightarrow{x=0} |2k-3|-2 = 2$

$\rightarrow k=4, 5$

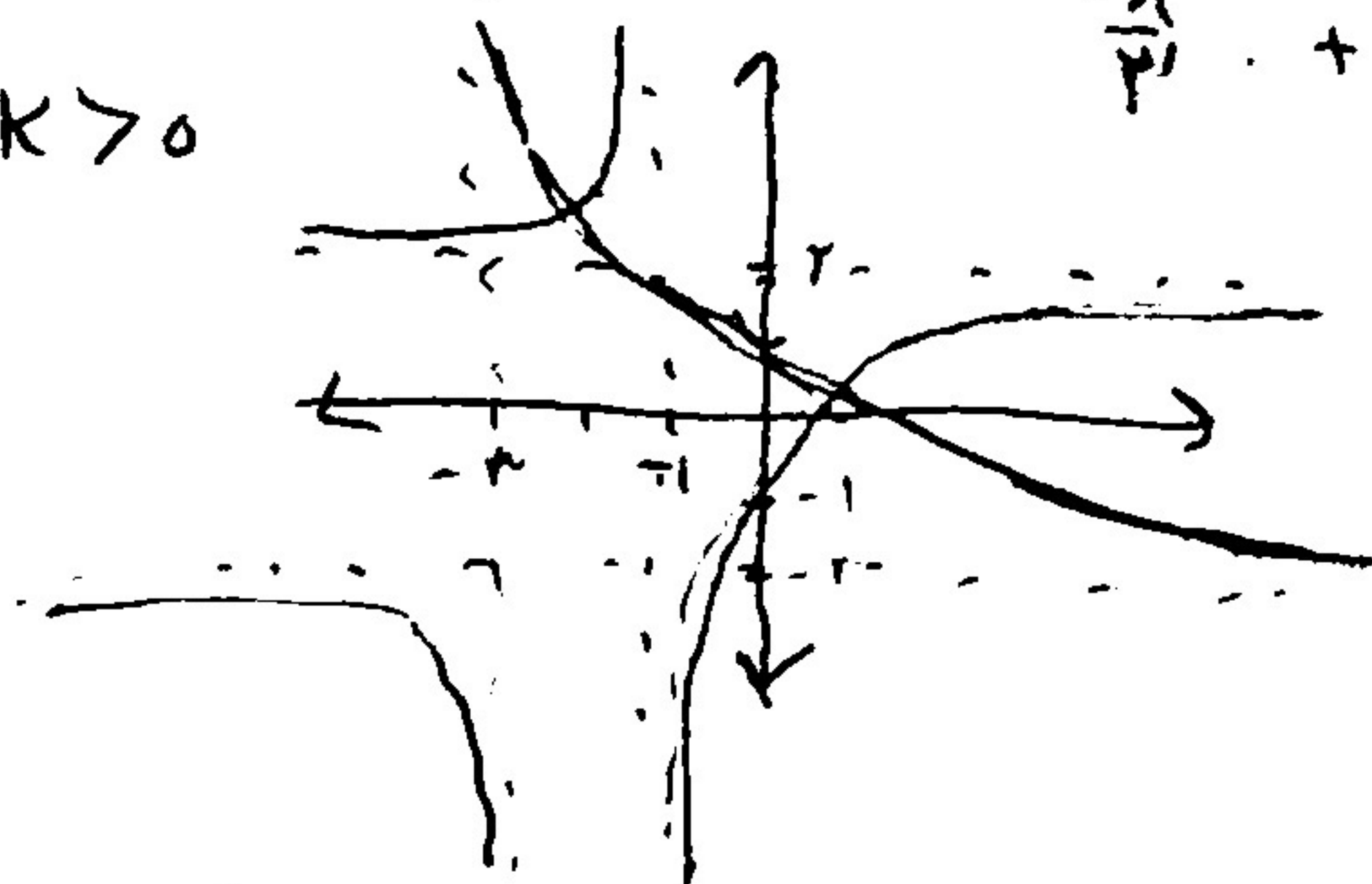
$$y \rightarrow -y$$

$$n \rightarrow \frac{1}{\mu} n$$

$$y \rightarrow y + K, K > 0$$

$$y = \frac{-r_{n+1}}{n+1} \rightarrow y = \frac{-\frac{r}{\mu} n + 1}{\frac{-r}{\mu} + 1}$$

$$y = \frac{-r_{n+\mu}}{n+\mu} \rightarrow y = \frac{-r_{n+\mu}}{n+\mu} + K$$



$$\mu \geq K \geq \varepsilon \rightarrow \boxed{K = \varepsilon}$$

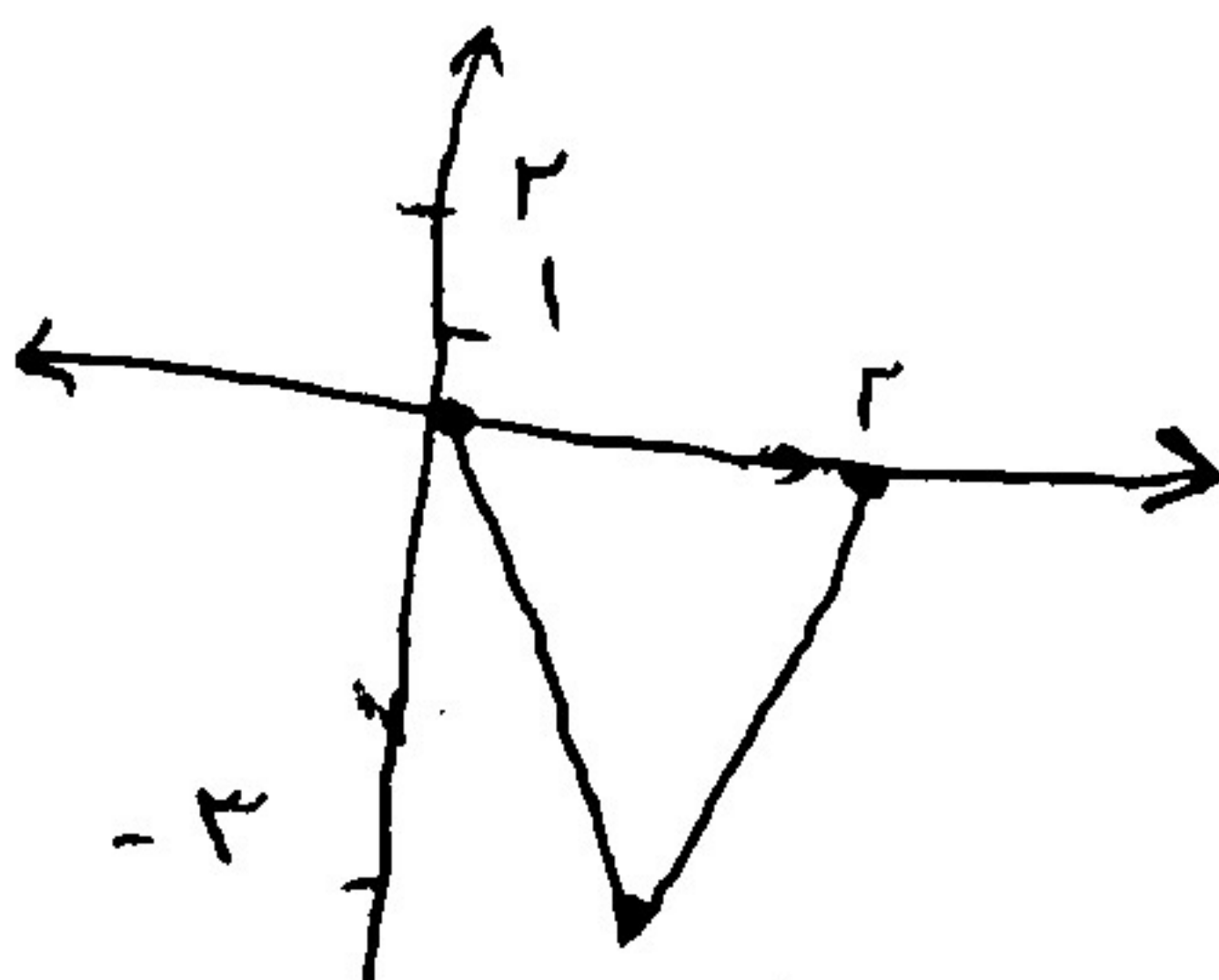
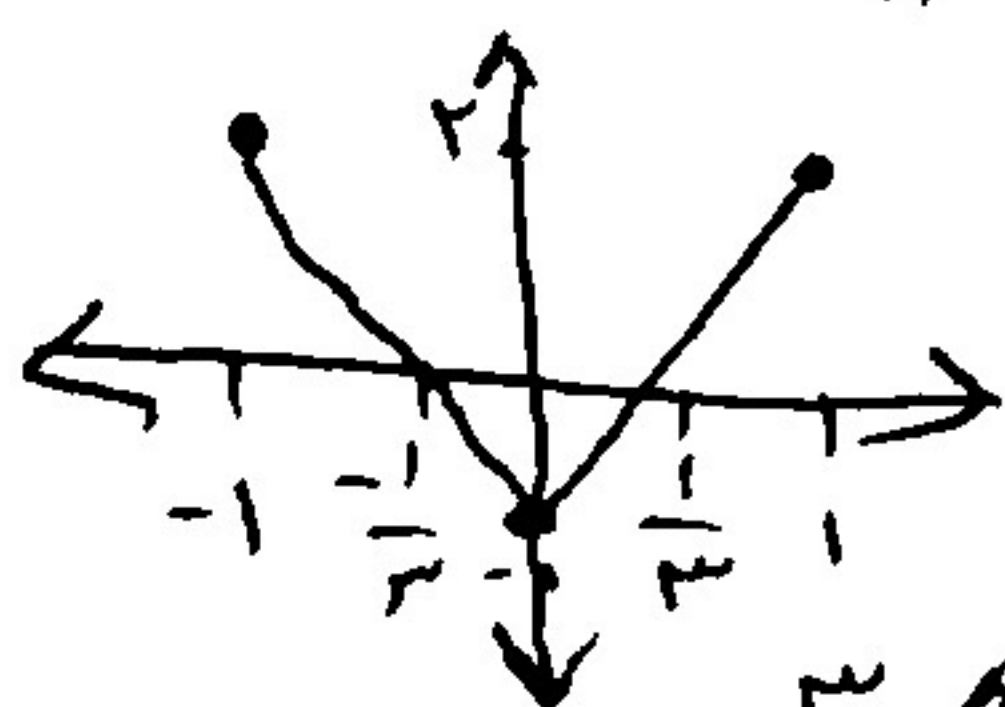
بعض μ واحد بالباورم

$$n \rightarrow r_n$$

$$n \rightarrow n-1$$

$$y \rightarrow y-r$$

$$y \rightarrow -y$$



$$S = \frac{r}{\mu} \times 1 \times \frac{1}{r} = \boxed{\frac{1}{\mu}}$$

$$\frac{q}{r} = \frac{(a-r)^r}{r} + \frac{\mu \times r}{r} \rightarrow \text{مقدار}$$

$$f(x) = |n-r|-r \xrightarrow{n = \frac{1}{a}, \frac{1}{\mu}} y = \left| \frac{1}{\mu} - r \right| - r = \boxed{\frac{r}{\mu}}$$

$a > 0 \rightarrow a = \mu$