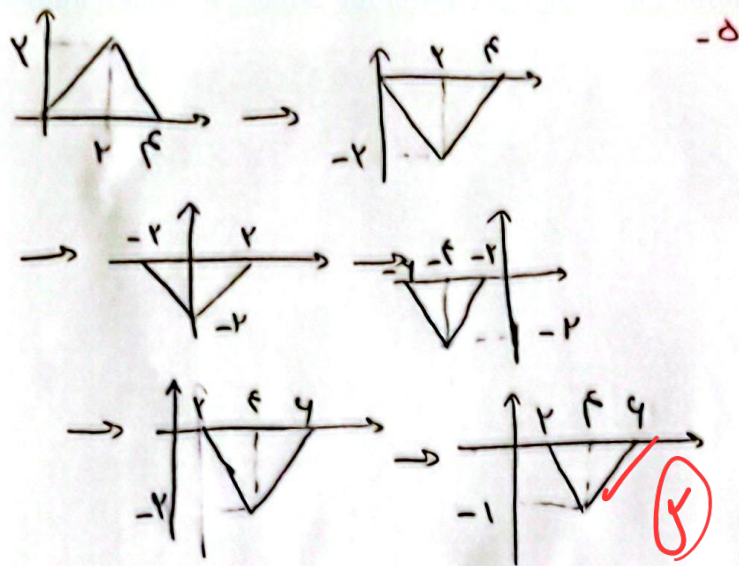
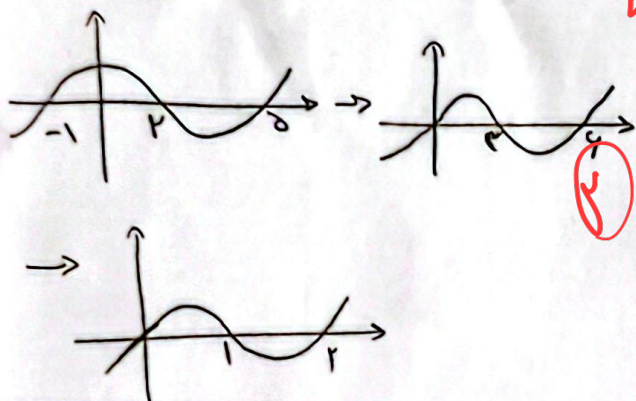




$$-(x+2)(f(1/x)-1) \geq 0 \rightarrow (x+2)(1/x-1) \geq 0$$

$$\frac{-2}{+} \frac{0}{-} \frac{1}{+} \frac{2}{-} \frac{0}{+} \rightarrow [-2, 0] \cup [1, 2]$$



$$|2x-3|+1 \rightarrow |2(x+k)-3|+1$$

$$\rightarrow |2(x+k)-3|-2=y \rightarrow x=0$$

$$|2k-3|-2 \leq \epsilon \rightarrow |2k-3| \leq 4$$

$$k \in [-1/2, 5/2] \rightarrow k \in [-1/2, 5/2]$$

$$\frac{2x-1}{x+1} \sim -\left(\frac{2x-1}{x+1}\right) \rightarrow \frac{-2x+1}{x+1}$$

$$\rightarrow \frac{1-2/x}{1+1/x} \rightarrow \frac{-2x+3}{x+3}$$

باید با دقت را قطع کرد

نمودار را باید دید
به بالا میریم

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الف) $-\epsilon \leq 2x-2 \leq 2$

$$-2 \leq 2x-2 \leq 2 \rightarrow -2/2 \leq x-1 \leq 2/2$$

$$\rightarrow -1 \leq x-1 \leq 1 \rightarrow 0 \leq x \leq 2$$

$$-2 \leq 2x-2 \leq 2 \rightarrow -2/2 \leq x-1 \leq 2/2$$

$$\rightarrow -1 \leq x-1 \leq 1 \rightarrow 0 \leq x \leq 2$$

$$\sim x+\sqrt{x-2} \sim f(x+2), x-2+\sqrt{x-2}$$

$$\rightarrow x-2+\sqrt{x-2} \geq xy$$

$$\hookrightarrow \sqrt{x-2} \geq y \rightarrow y \leq \sqrt{x-2} \rightarrow y \leq 1$$

$$\sim x, y \Rightarrow \bigwedge_{x \in [2, \infty)} \exists y \in [0, 1]$$

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$$\sim \frac{2}{1} \frac{1 \times 2}{2} \sqrt{1/2}$$

$$\sim \left| \frac{x}{2x-1} \right| \rightarrow f\left(\frac{x-a}{2}\right), \frac{y-a}{2}$$

$$\rightarrow f(x) = \frac{x-a-1-9}{2} \rightarrow \frac{x-10-a}{2} \rightarrow -4$$

$$y, 2x'-1 \rightarrow 2\left(\frac{x-9}{2}\right)-1 \rightarrow x-9-1 \rightarrow x-10$$

$$\Rightarrow x-a-1 \geq 2 \rightarrow x-a \geq 3$$

$$\frac{x-a}{2} \geq 2 \rightarrow x-a \geq 4$$

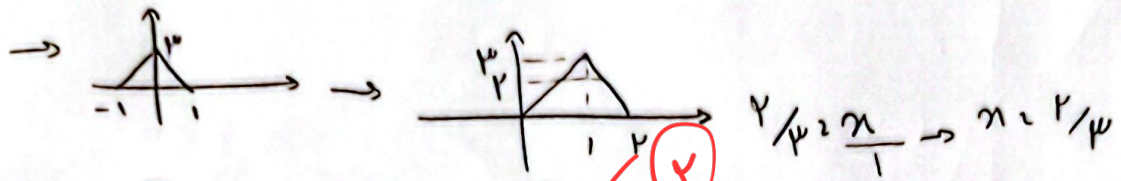
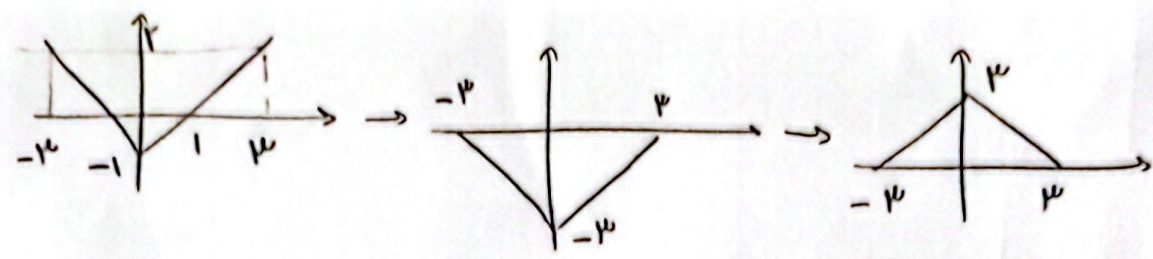
$$\left| \frac{2x-2a}{x-2a-2} \right|$$

$$\frac{a-a}{2} = 2 \rightarrow x=a+4$$

$$\frac{y-a}{2} = -2 \rightarrow y=a-4$$

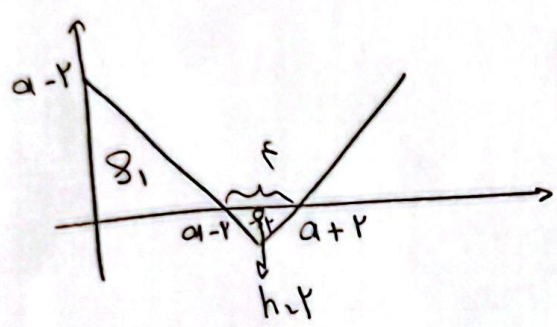
$$A' \left| \begin{matrix} a+4 \\ a-4 \end{matrix} \right| \rightarrow a-4 = 2(a+4)-1$$

$$\underline{a=-6}$$



$$y/\mu = \frac{x}{1} \rightarrow x = y/\mu$$

$$\Rightarrow S_2 = \frac{y}{\mu} \times 1 \times \frac{1}{\mu} \sqrt{\frac{1}{\mu}} \quad \text{✓} \quad \textcircled{y}$$



$$S_{12} = \frac{(a-y)^y}{y}$$

$$S_{y2} = \epsilon \times \frac{y}{y} = \epsilon$$

$$S_1 + S_{y2} \approx \frac{a^y + \epsilon - \epsilon a}{y} + \epsilon \approx \frac{a^y}{y}$$

$$a^y - \epsilon a + \epsilon + \frac{1}{y} \approx a^y - \epsilon a + \frac{1}{y}$$

$$\begin{aligned} &\downarrow \\ &(a-1)(a-y) \approx 0 \\ &\quad \swarrow \quad \searrow \\ &a \approx 1 \quad \quad a \approx y \end{aligned}$$

if $a \approx 1$

if $a \approx y$ ✓

$$a-y > 0 \rightarrow a > y \Rightarrow a \neq 1 \rightarrow f(n) \approx |n-y|^{-y}$$

$$f(y/\mu) \approx \frac{1}{\mu} - y \sqrt{y/\mu} \quad \text{✓}$$

Ⓨ