

الف) $f(x) \rightarrow D_f = [-\varepsilon, -\varepsilon] \rightarrow -\varepsilon \leq x - \varepsilon \leq -\varepsilon \quad -\frac{\varepsilon}{2} \leq x \leq 0$ ①

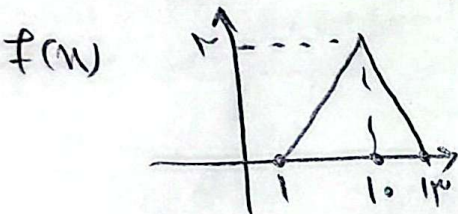
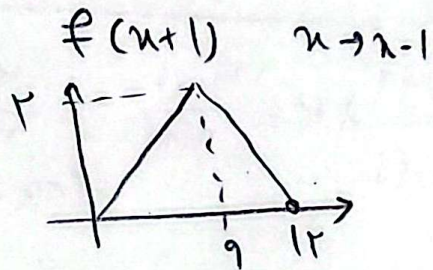
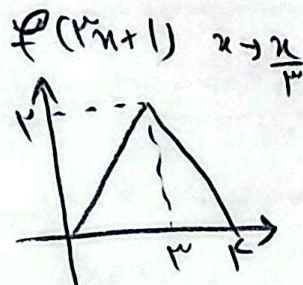
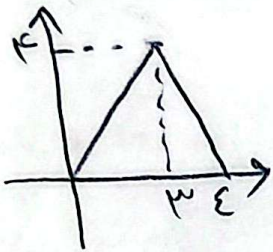
ب) $f(x - \varepsilon) \rightarrow -\varepsilon \leq x - \varepsilon \leq -\varepsilon \rightarrow f(0) \rightarrow D_{f(x)} = [-\varepsilon, \varepsilon]$
 $- \varepsilon \leq x \leq -\varepsilon \rightarrow -\varepsilon \leq 0 \leq -\varepsilon$

الف) $x \rightarrow x - \varepsilon \rightarrow x - \varepsilon + \sqrt{x - \varepsilon} = 0 \rightarrow$ ②

و چون x و y در $\mathbb{R}$ قرار دارند

$A(a, 0) \rightarrow A'(a, 0) \rightarrow$ (نقطه)

$g(x) = 1 - f(x+1)$



$S = \frac{1 \times 1}{2} = \frac{1}{2}$

$\frac{x-a}{\varepsilon} = \varepsilon \rightarrow x = \varepsilon + a$

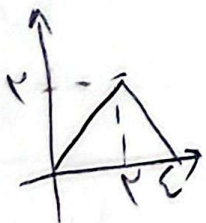
$\rightarrow A'(\varepsilon + a, a - \varepsilon)$

$a + \varepsilon - f(\frac{x-a}{\varepsilon}) = -\varepsilon + a$

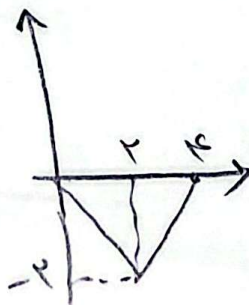
$f(\varepsilon + a) - \varepsilon = a - \varepsilon$

$a + \varepsilon - a = a - \varepsilon \rightarrow a = -\varepsilon$

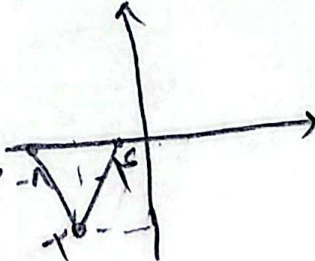
$g = -f(x+1)$



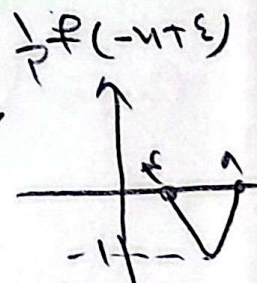
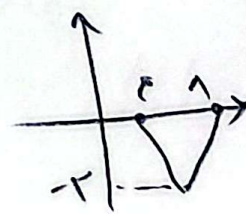
$f(x - \varepsilon)$



$f(x + \varepsilon)$



$f(-x + \varepsilon)$



$$\begin{aligned} 3n-1 &= 0 \rightarrow n=1 \\ 3n-1 &= 2 \rightarrow n=1 \\ 3n-1 &= -1 \rightarrow n=0 \end{aligned}$$

$$\begin{array}{cccc} -1 & 0 & 1 & 2 \\ \hline -1 & +1 & -1 & +1 \\ \hline \end{array}$$

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

تابع K : $x \rightarrow x+K$

$g \rightarrow g-3$

$$|2(n+K)-3|+1-3 = g(n) \rightarrow g(n) = |2n+2K-3|-2$$

$$f(n) = g(n) \rightarrow f(n) = g(n) = \varepsilon \rightarrow |2K-3|-2 = \varepsilon$$

$$2K-3 = \varepsilon \rightarrow K = \frac{\varepsilon+3}{2}$$

اگر K منفی شود انتقال به راست بود
 $2K-3 = -\varepsilon \rightarrow K = -\frac{\varepsilon-3}{2}$

$$\frac{-2(\frac{n}{p})+1}{\frac{n}{p}+1} + K = \frac{2n-1}{n+1} \rightarrow \frac{-2n+2+Kn+2K}{n+1} = \frac{2n-1}{n+1}$$

$$(K-2)(n+3+2K)(n+1) = (2n-1)(n+1) \rightarrow$$

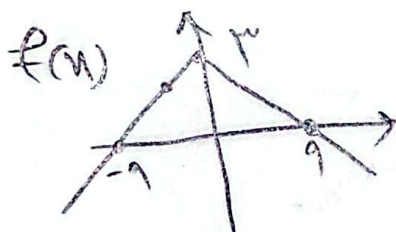
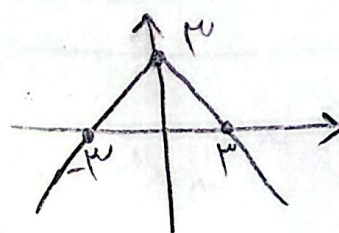
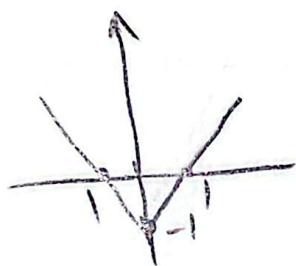
$$\rightarrow (K-2)n^2 + (4K-5)n + 4+2K = 0$$

معادله درجه دوم است و باید دلتا را حساب کنیم
 $\Delta = 0 \rightarrow (K-2) = 0 \rightarrow K = 2$

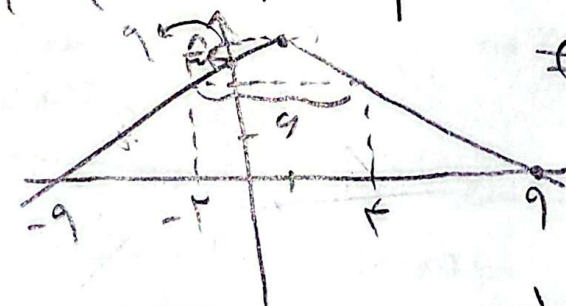
$$-f(\frac{n}{p})+2$$

$$f(\frac{n}{p})-2$$

$$f(\frac{n}{p})$$



$$f(n) = -|\frac{n}{p}| + 2$$



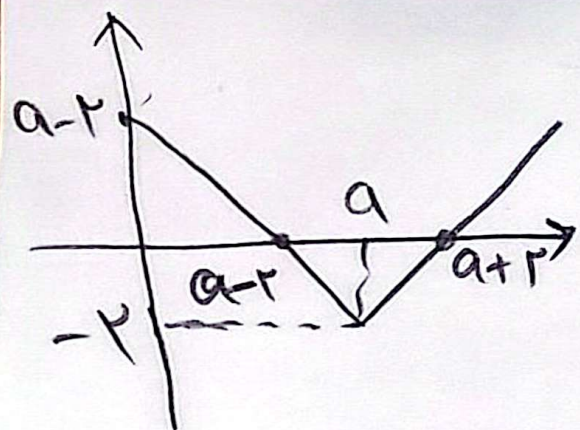
$$f(n-1) = -|\frac{1}{p}(n-1)| + 2$$

$$S = \frac{9 \times 1}{2} = 4.5$$

$$-\frac{1}{p}(n-1) + 2 = 2 \rightarrow n = 1$$

$$\frac{1}{p}(n-1) + 2 = 2 \rightarrow n = -1$$

نویسنده



$$\frac{(a-r)(a-r)}{r} + \frac{\epsilon x}{x} = \frac{q}{x}$$

$$a^2 - \epsilon a + \epsilon = 1$$

$$a^2 - \epsilon a + r = 0 \quad (a-r)(a-1) = 0 \quad \begin{matrix} \rightarrow a=r \rightarrow \checkmark \\ \rightarrow a=1 \rightarrow a-r=-1 \times \end{matrix}$$

$$f(x) = |x-r| - r \rightarrow f\left(\frac{1}{a}\right) = f\left(\frac{1}{r}\right) = \left| \frac{1}{r} - r \right| - r = \frac{r}{r}$$

جواب