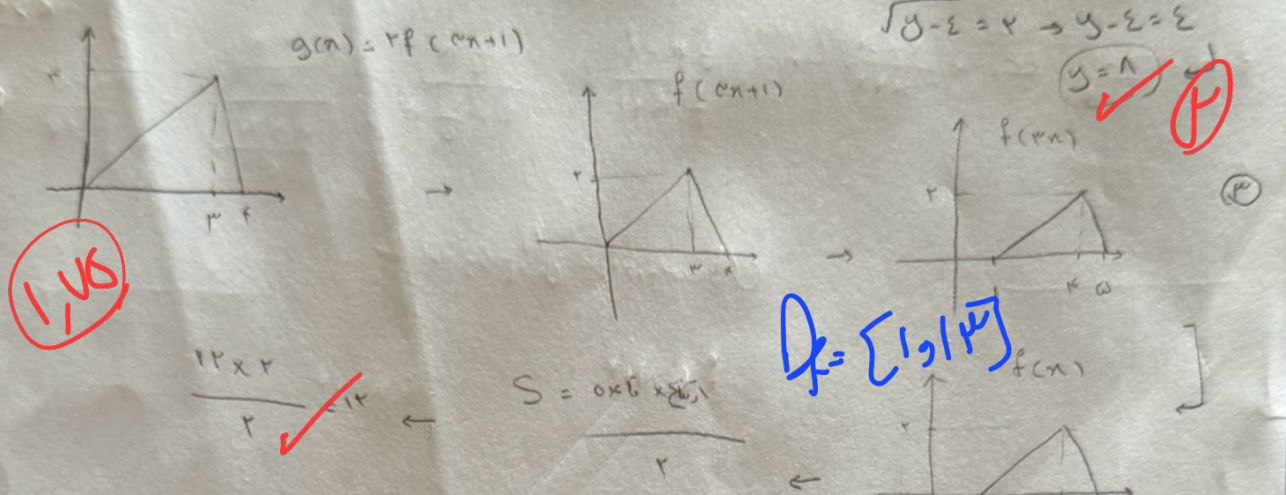


$-r < x < r \rightarrow -r < rx - r < r \rightarrow -r < rx < r \rightarrow -\frac{r}{x} < 1 < \frac{r}{x} \rightarrow \frac{-r}{x} < 1 < \frac{r}{x}$

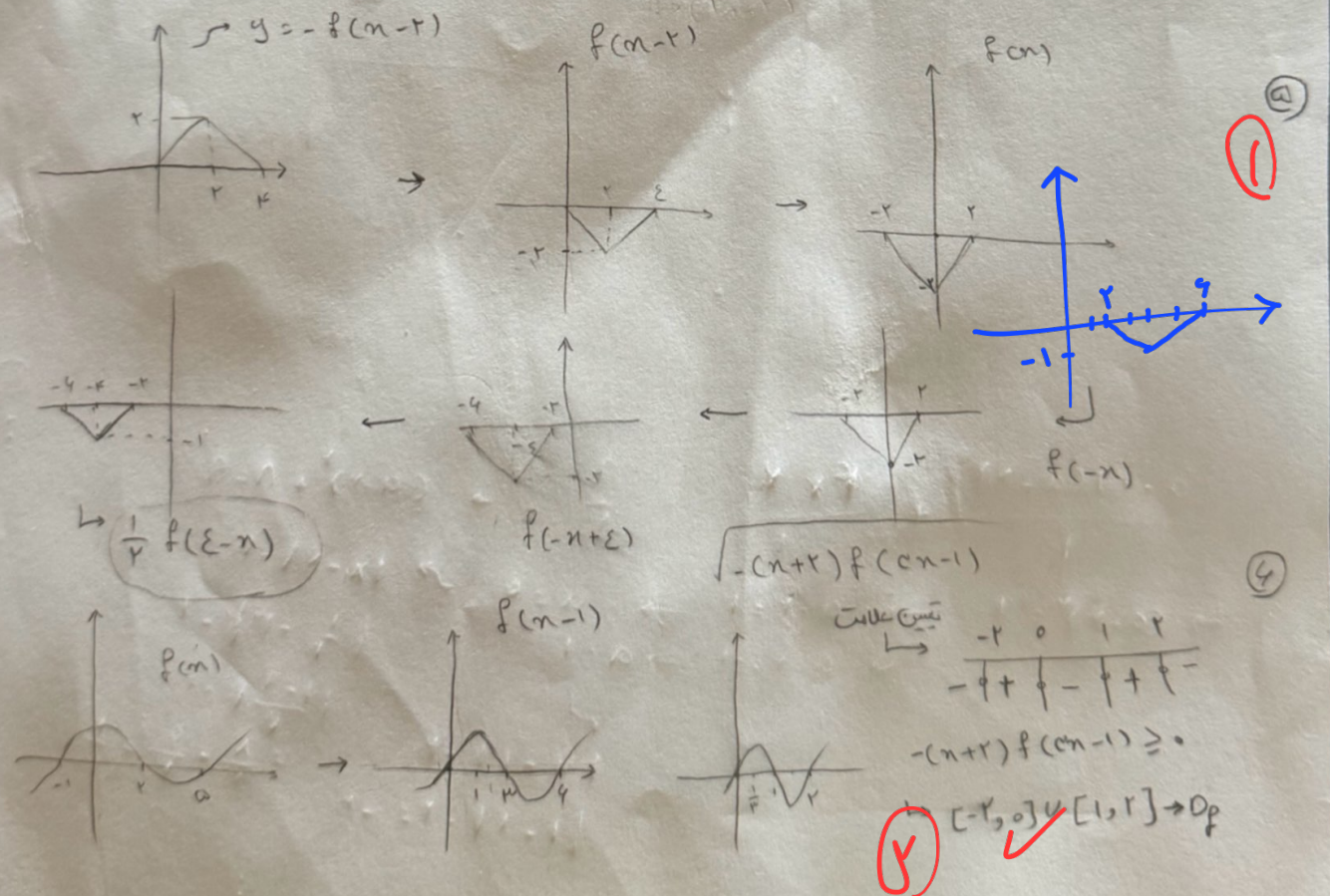
$-r < x < r \xrightarrow{x^2} -r^2 < rx < r^2 \rightarrow -r^2 < rx - r < r^2 \rightarrow -r^2 < rx < r^2 \rightarrow -r^2 < rx < r^2 \Rightarrow \text{no} \Rightarrow [-r^2, r^2]$

$x + \sqrt{x-r} \xrightarrow{(-r)} y = x - r + \sqrt{x-r} \xrightarrow{y=x-r} x = y + r + \sqrt{y-r} \xrightarrow{x=y} y = y + r + \sqrt{y-r} \Rightarrow y - r + \sqrt{y-r} = y \Rightarrow \sqrt{y-r} = r \Rightarrow y - r = r^2 \Rightarrow y = r^2 + r$



$a - r = r/(a+r) - 1 \rightarrow a = -r$

$A(r, -r) \rightarrow f(r) = -r \rightarrow a + rf(r) = y \rightarrow y = a - r$   
 $A' \rightarrow y = rn - 1 \rightarrow r(r) - 1 = -r \rightarrow a - r = -r \Rightarrow a = r - r = 0$





$$f(n) = |2n-3|+1 \rightarrow \underbrace{|2n-3+k|+1-3}_{g(n)}$$

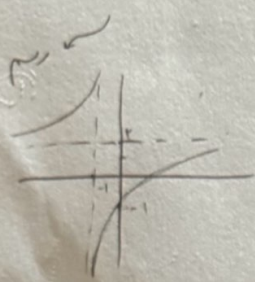
hvs

k=fid

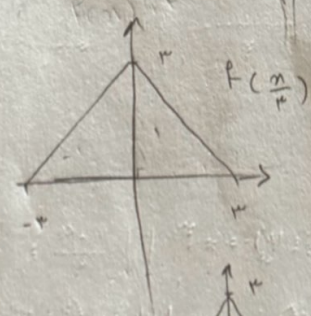
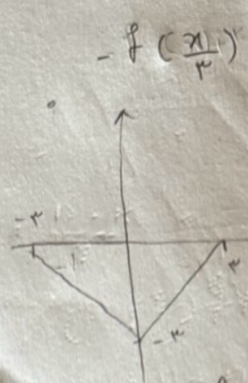
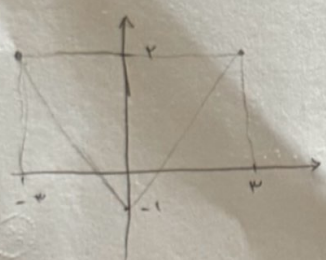
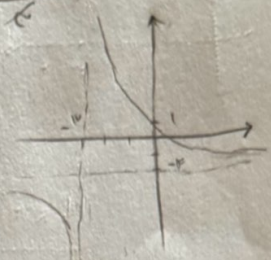
$$\rightarrow |2n-3|+1 = |2n-3+k|-2 \rightarrow \text{دری کردن} \rightarrow n=0$$

$$|-3|+1 = |-3+k|-2 \rightarrow k = |k-3|-2 \rightarrow 4 = |k-3| \rightarrow \begin{cases} k-3=4 \rightarrow k=7 \\ 3-k=4 \rightarrow k=-1 \end{cases}$$

$$f(n) = \frac{2n-1}{n+1} \xrightarrow{\text{تقسیم}} - \frac{2n-1}{n+1} \xrightarrow{\text{تقسیم}} - \frac{\frac{2}{n}-1}{\frac{1}{n}+1} \Rightarrow \frac{1-\frac{2}{n}}{1+\frac{1}{n}} = \frac{1-\frac{2}{n}}{\frac{n+1}{n}} = \frac{n-2}{n+1}$$



با توجه به شکل و با توجه به شکل



$$S = \frac{a_1 + a_n}{2} \times n$$

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

hvs

$$\frac{(a-r)(a-r)}{r} + \frac{r \times n}{r} = \frac{a}{r} \rightarrow (a-r)^2 + n = \frac{a}{r}$$

$$\rightarrow (a-r)^2 = 1 \rightarrow a-r=1 \rightarrow a=2 \rightarrow |x-3|-2$$

$$|\frac{1}{n}-3|-2 = \frac{1}{n}-\frac{9}{n} = \frac{1-9}{n} = \frac{-8}{n}$$