



تاریخ
شماره
پوست

$$-2 \leq \frac{3n+2}{5} \leq 2 \rightarrow -10 \leq 3n+2 \leq 10$$

$$-12 \leq 3n \leq 11$$

$$\boxed{-4 \leq n \leq 4}$$

هلیا عقاری

(۱)

$$D_{f(n)} = \begin{matrix} n=-2 \\ \rightarrow 3(-2)-2 = -10 \\ n=4 \\ \rightarrow 3(4)-2 = 10 \end{matrix} \Rightarrow D_{f(n)} = [-10, 10]$$

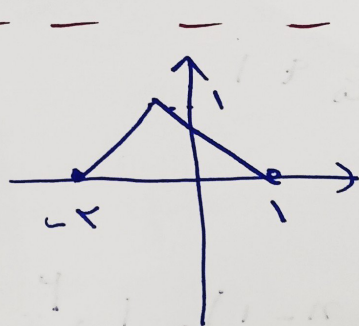
(۲)

$$D_f = \begin{matrix} n=-1 \\ \rightarrow \frac{3(-1)+1}{2} = -1 \\ n=3 \\ \rightarrow \frac{3(3)+1}{2} = 5 \end{matrix} \Rightarrow D_{f(n)} = [-1, 5]$$

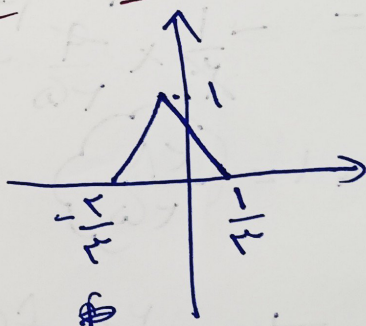
(۳)

$$\Rightarrow D_{f(2-5n)} = -1 \leq 2-5n \leq 5 \rightarrow -3 \leq -5n \leq 3$$

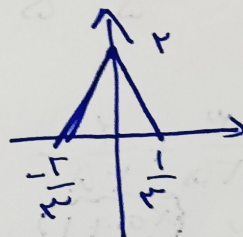
$$\Rightarrow -3 \leq -5n \leq 3 \Rightarrow -\frac{3}{5} \leq n \leq \frac{3}{5} \Rightarrow D_{f(2-5n)} = \left(-\frac{3}{5}, \frac{3}{5}\right]$$



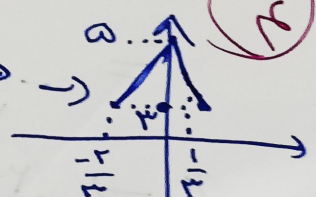
$f(n+1)$



$f(3n+1)$



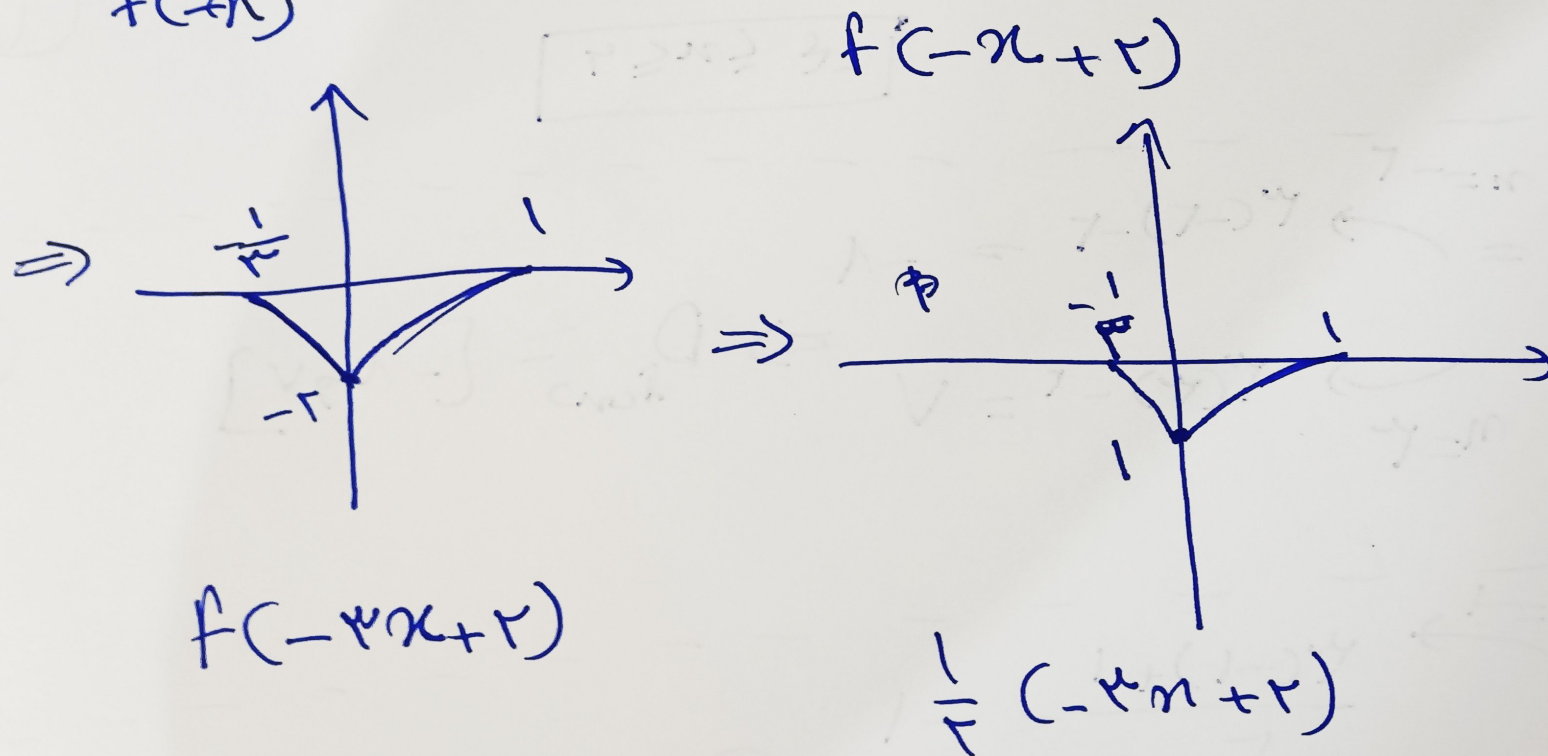
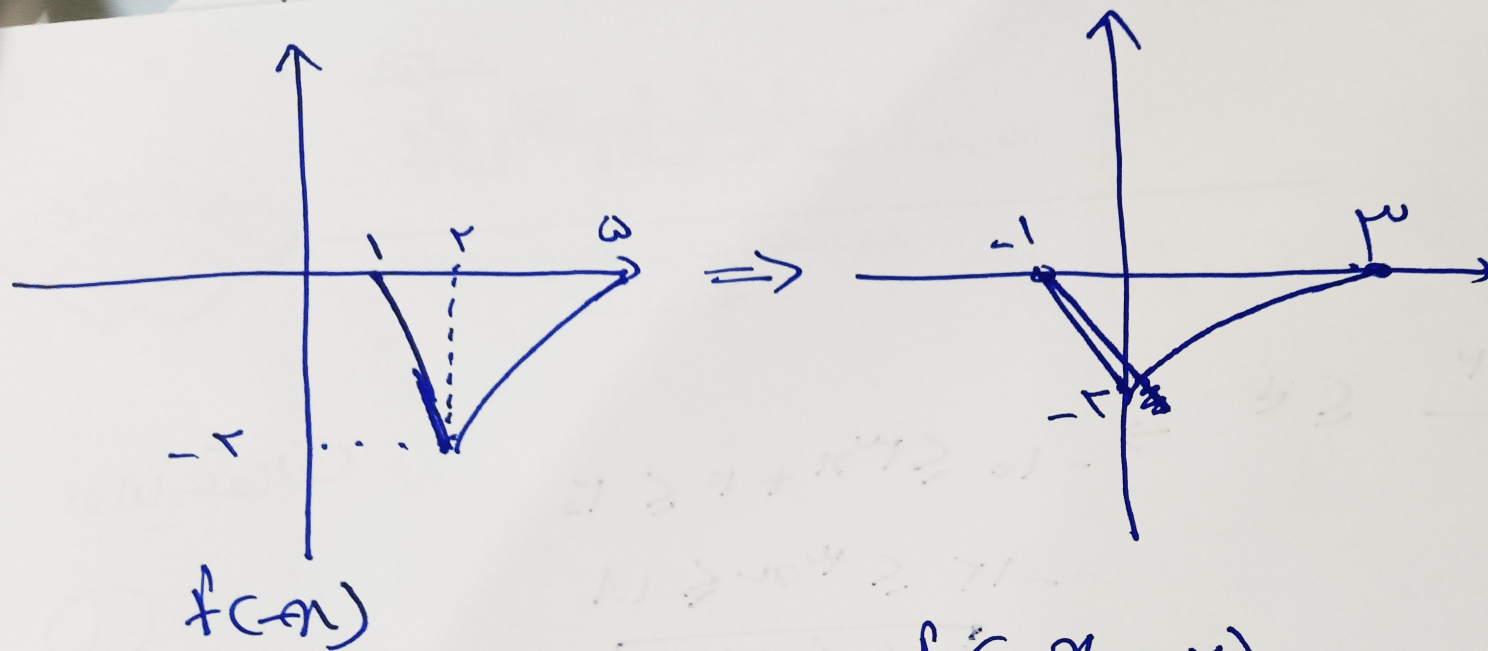
$2f(3n+1)$



$2f(3n+1)+2$

(۴)

③ ~~④~~



④ ~~⑤~~

19

4

$$a(n-\varepsilon)^r + \mu$$

$$a(n^r - \lambda n + 14) + \mu \Rightarrow an^r - \lambda an + 14a + \mu$$

$$\frac{1}{\mu} (n^r - \lambda n + 14) + \mu =$$

$$-\frac{1}{\mu} (n - \varepsilon)^r + \mu = 0$$

$$\cancel{\frac{1}{\mu}} (n - \varepsilon)^r = -\cancel{\mu} \rightarrow n - \varepsilon = \mu \Rightarrow n = \mu$$
$$n - \varepsilon = -\mu \Rightarrow n = 1$$

$$D_{f(\frac{1}{r}n+1)} = \left\{ -\frac{r}{r}, \frac{a}{r} \right\} \rightarrow D_{f(n+1)} = \left\{ -\frac{r}{r}, \frac{a}{r} \right\} \quad (9)$$

$$\Rightarrow D_{f(n)} = \left[-\frac{1}{r}, \frac{v}{r} \right] \quad R_{f(n)} = [-1, r]$$

$$R_{f(n)} = [-r, r] \rightarrow R_{f(n-r)} = [-a, 1] \rightarrow R = [0, a]$$

$$\Rightarrow R_{\sqrt{1 \pm f(n)-r}} = [0, \sqrt{a}] \quad |f(n)-r|$$

$$\left| \frac{(n-r)+1}{r(n-r)+1} \right| + 1 \Rightarrow \left| \frac{n-1}{rn-r} \right| + 1 = g(n) \quad (10)$$

$$n + \left| \frac{n-r}{rn-r} \right| + 1 < 0$$

نوار؟ $\frac{3}{2}$ نوار؟ r نوار؟

$$n + \frac{n-r}{rn-r} + 1 \leq$$

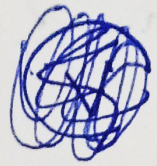
$$\frac{rn^2 - rn - n + 1 + rn^2 - rn + r + rn - r}{rn-r}$$

$$\leq \frac{rn^2 - rn - r}{rn-r} < 0$$

$$\Delta = 10 \quad n = \frac{r \pm r\sqrt{a}}{r}$$

$$\frac{1-\sqrt{a}}{r} + \frac{3}{2} + \frac{1+\sqrt{a}}{r} + \frac{-\sqrt{r}}{r} + \frac{\sqrt{r}}{r} + \frac{r}{r}$$

$$\Rightarrow (-\infty, -\sqrt{r})$$



$$y = 1 - r f(n+r) \Rightarrow f(n+r) = \frac{1-y}{r}$$

$$r n + r = r \Rightarrow n = \frac{-1}{r}$$

$$\frac{1-y}{r} = r \Rightarrow 1-y = r^2 \Rightarrow y = 1-r^2 \Rightarrow \alpha \beta = \frac{r}{r^2}$$

$$D_{f(n)} = \{a, r\} \Rightarrow D_{f(n+r)} = \{a+1, r\}$$

$$D_{g(n)} = \{-1, b\} \Rightarrow D_{g(n+1)} = \{-r, b-1\}$$

$$\begin{pmatrix} a+1 & r \\ -r & b-1 \end{pmatrix}$$

$$\Rightarrow a+1 = -r \Rightarrow a = -r-1$$

$$b-1 = r \Rightarrow b = r+1$$

$$a-b = -2$$