

$$-2 \leq \frac{r_n + 1}{\delta} \leq 2 \Rightarrow -10 \leq r_n + 1 \leq 20 \Rightarrow -11 \leq r_n \leq 19 \Rightarrow -2 \leq n \leq 4 \quad (1)$$

$$D_f = [-2, 4] \quad -2 \leq n \leq 4 \Rightarrow -1 \leq r_n \leq 9 \Rightarrow -1 \leq r_n - 1 \leq 7 \quad (2)$$

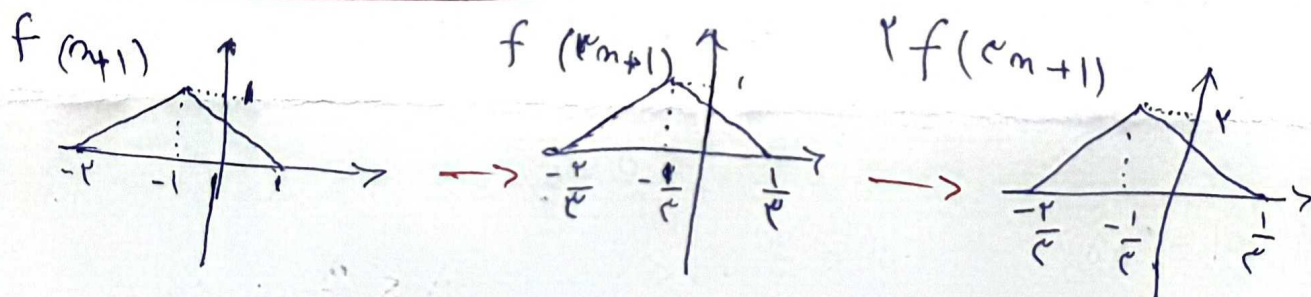
$$D_f = [-1, 7]$$

$$D = [-1, 4] \Rightarrow -1 \leq n \leq 4 \Rightarrow -2 \leq r_n \leq 9 \Rightarrow -2 \leq r_n + 1 \leq 10 \quad (3)$$

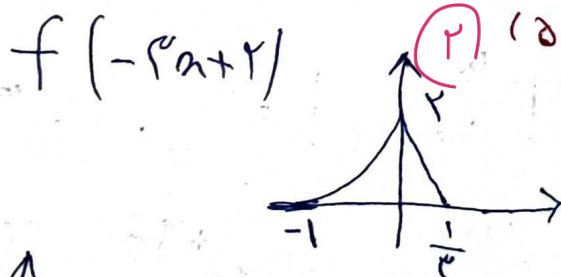
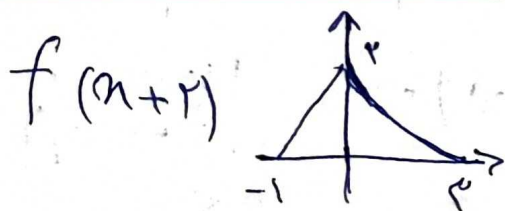
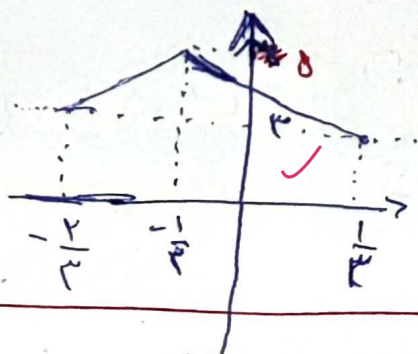
$$\Rightarrow -1 \leq \frac{r_n + 1}{2} \leq 5 \Rightarrow D_{f(n)} = [-1, 5] \rightarrow$$

$$-1 \leq 5 - \delta n \leq 5 \Rightarrow -6 \leq -\delta n \leq 0 \Rightarrow 0 \leq \delta n \leq 6 \Rightarrow \frac{6}{\delta} \geq n \geq -\frac{6}{\delta}$$

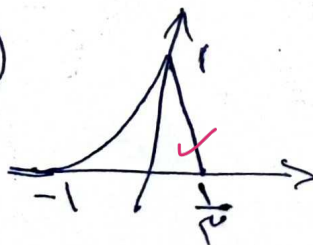
$$D_f(5 - \delta n) = \left(-\frac{6}{\delta}, \frac{6}{\delta}\right)$$



$$2f(r_{n+1}) + 1$$



$$\frac{1}{r} f(1 - r_n)$$



ضرب ۹ تغییر نمی کند، بنابراین معادله سهی به صورت زیر است (۴) (۱۷۵)

$$J = -\frac{1}{2}(x-3)^2 + 3 \quad \text{برفرد با مخرج ۲} \quad 0 = -\frac{1}{2}(x-3)^2 + 3 \Rightarrow (x-3)^2 = 6$$

$$\Rightarrow x-3 = \pm \sqrt{6} \Rightarrow x_1 = 3 - \sqrt{6}, x_2 = 3 + \sqrt{6}$$

صغی آخر

$$f'(x) = 0 \Rightarrow x = 3 \quad f(3) = 3 \Rightarrow A(3, 3)$$

$$\Rightarrow \alpha\beta = -\frac{1}{2}x - 3 = -\frac{3}{2} - 3 = -\frac{9}{2}$$

(۱۸)  $Df = (a, c], Dg = [-1, b), Df+g = \text{درج ۲}$

$$\left. \begin{aligned} a < m-1 \leq c &\rightarrow a+1 \leq m \leq c \\ -1 \leq m+1 < b &\rightarrow -2 \leq m < b-1 \end{aligned} \right\} \Rightarrow D_{f+g} = (-2, d) \Rightarrow$$

$$a+1 = -2 \Rightarrow a = -3, b-1 = d \Rightarrow b = d+1 \Rightarrow a-b = -4$$

(۱۹)  $D_{g_1} = [-2, d] \Rightarrow -2 \leq \frac{m}{2} + 1 \leq d \Rightarrow -4 \leq \frac{m}{2} + 1 \leq 2$

$\Rightarrow D_{f(m)} = [-4, 2] \xrightarrow{\text{در مطلق}} D_{g_2} = [-4, 2], R_{f(m)} = [-1, 2] \Rightarrow$

$-\delta \leq 2f(m) - 3 \leq \delta \Rightarrow |2f(m) - 3| \leq \delta$

$\Rightarrow R_{g_2} \xrightarrow{\text{در مطلق}} [\frac{5}{2}, \frac{7}{2}]$

$g(m) = f(m-2) + 1 \rightarrow \left| \frac{m-1}{2m-2} + 1 \right| + 1$

$$| \frac{m-1}{2m-2} | + 1, g(m) + m < 0, g(m) \geq 0 \Rightarrow m < 0$$

$g(m) = \frac{m-1}{2m-2} + 1 \rightarrow g(m) = \frac{m-1}{2m-2} \Rightarrow \frac{m-1}{2m-2} + m < 0 \Rightarrow$

$2m^2 - 4 > 0 \Rightarrow m^2 - 2 > 0 \Rightarrow m^2 > 2 \Rightarrow m > \sqrt{2} \text{ or } m < -\sqrt{2}$

رأس:  $(h, K) \xrightarrow{\text{معادلة خط}} y = a(n-h)^r + K = -\frac{1}{r}n^r + \frac{r}{\Delta}n + 1 \rightarrow a = -\frac{1}{r}$  -9

رأس:  $(4, 3) \rightarrow y = -\frac{1}{r}(n-4)^r + 3 \xrightarrow{y=0} -\frac{1}{r}(n-4)^r = -3 \rightarrow \begin{cases} n=7 \\ n=1 \end{cases}$

$D_{y_1} = [-3, 5] \rightarrow -3 \leq n \leq 5 \rightarrow -\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{5}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{5}{r}\right]$  -9

$R_{y_1} = [-1, 2] \rightarrow -1 \leq f \leq 2 \rightarrow -5 \leq 2f - 3 \leq 1 \rightarrow 0 \leq |2f - 3| \leq 5$

$0 \leq \sqrt{|2f - 3|} \leq \sqrt{5} \Rightarrow R_f = [0, \sqrt{5}]$