

$$f(m) \rightarrow \mathcal{D}_f = [-r, r] \rightarrow f(m) = f(t) \rightarrow -r \leq t \leq r$$

$$f\left(\frac{y_{n+1}}{\omega}\right) \xrightarrow{df} f \rightarrow \frac{y_{n+1}}{\omega} = z \rightarrow -\frac{y}{\omega} \frac{y_{n+1}}{\omega} \leq f \rightarrow -b \leq y_{n+1} \leq y_0$$

$$-12 \leq 3x \leq 18 \longrightarrow -4 \leq x \leq 6 \longrightarrow D_f = [-4, 6]$$

$$\ell(\mu_n - \gamma) \rightarrow \mathcal{D} = [-\gamma, \gamma]$$

$$-4 \leq m \leq 4 \longrightarrow -4-2 \leq m-2 \leq 4-2$$

$$D_{f(m)} = ?$$

$\hookrightarrow f(n) = f(t) \rightarrow D_{f(n)} = [-1, \checkmark]$

$$-1 \leq t \leq 1$$

$$f\left(\frac{y_n + 1}{y}\right) \rightarrow D = [-1, 4)$$

$$\text{ind} = x \cdot \frac{x+1}{2} = t$$

$$-\frac{p+1}{r} \leq \frac{p_x+1}{r} < \frac{q+1}{r}$$

$$f(r - \delta n) \rightarrow \text{if } r - \delta n = t < \omega$$

$$-r \leq -\omega n < r$$

$$-1 \leq t < \infty$$

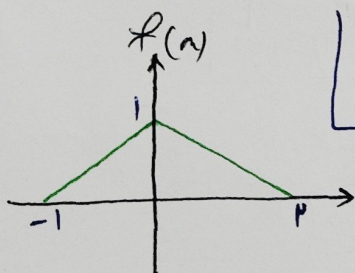
$$f = \left(-\frac{1}{\omega}, \frac{1}{\omega}\right]$$

$$1 \rightarrow +\frac{v}{a} \geq x \geq -\frac{v}{a}$$

$$y = r^x(r^{a+1}) + r^u$$

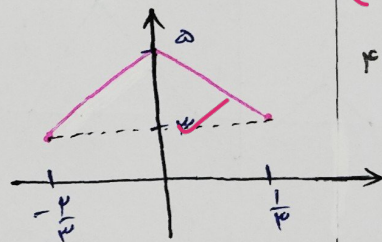
$$\{D_f = [-1, 2]\}$$

$$-1 \leq n+1 \leq 4 \rightarrow -\frac{4}{5} \leq n \leq \frac{1}{5}$$



$$\text{Rf} = [0, 1]$$

$$R'F = [0 + r, r + r] = [r, \omega]$$



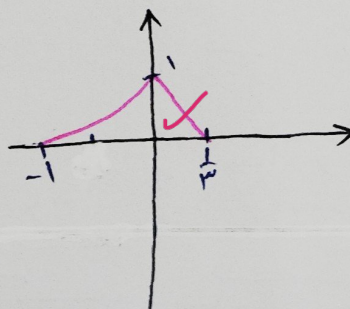
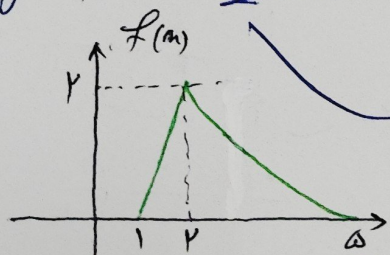
$$y = \frac{1}{r} f(r - r_m)$$

$$D_f = [1, 5]$$

$$D_{\mathbb{F}'} = 1, \nu - \nu_m \leq \omega \rightarrow -1 \leq -\nu_m \leq \nu \rightarrow \frac{1}{\nu} \geq m \geq -1$$

$$\Rightarrow \mathcal{R}_F = [0, r]$$

$$) R'x = [0, 1]$$



$\frac{1}{\mu} \mu \rightarrow 0$

$$y = -\frac{1}{\sqrt{2}}x^2 + \frac{\sqrt{2}}{2}x + 1 \xrightarrow{\text{انقلاب}} \text{نقطه } z(f, \sqrt{2}) \xrightarrow{\text{انقلاب}} \begin{cases} \Delta x = \frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{2} \\ \Delta y = \frac{\sqrt{2}}{2} - \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{2} \end{cases}$$

$$\text{ext} \left| -\frac{b}{2a} = -\frac{\frac{\sqrt{2}}{2}}{-\frac{1}{\sqrt{2}}} = \frac{\sqrt{2}}{2} \rightarrow \text{ext} \left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2} \right)$$

$$y = -\frac{1}{\sqrt{2}} \left(\frac{\sqrt{2}}{2} \right)^2 + \frac{\sqrt{2}}{2} \left(\frac{\sqrt{2}}{2} \right) + 1 = \frac{\sqrt{2}}{2}$$

$$\xrightarrow{\text{انقلاب}} -\frac{1}{\sqrt{2}} \left(m - \frac{\sqrt{2}}{2} \right)^2 + \frac{\sqrt{2}}{2} \left(m - \frac{\sqrt{2}}{2} \right) + 1 + \frac{\sqrt{2}}{2} =$$

صفحه آخر

$$y = 1 - 2f(xm+1) \xrightarrow{\text{نقطه}} A = (a, b) \rightarrow a \cdot b = \frac{\sqrt{2}}{2}$$

$$f(m) = a(m+1)(m-1) = am^2 - 2am - a \xrightarrow{m=1} a - 2a - a = -2a = f \rightarrow a = -1$$

$$y = 1 - 2(-1)(xm+1)(xm+1-1) = 1 - 2(-1)(xm+1)(xm) = 1 + 2xm(xm+1)$$

$$f(m) = -\frac{f}{2}(m+1)(m-1)$$

$$\xrightarrow{\text{ext}} \left| -\frac{1}{\sqrt{2}}x \right| \rightarrow \frac{\sqrt{2}}{2}$$

$$D_f = (a, f] \xrightarrow{\text{نقطه}} D_f' = (a+1, \frac{a}{2}] \xrightarrow{\text{نقطه}} (-2, \frac{a}{2})$$

$$D_g = [-1, b) \xrightarrow{\text{نقطه}} [-2, b-1)$$

$$y = f(m-1) + g(m+1) \rightarrow D_g = (-2, \frac{a}{2})$$

$$a-b = f$$

$$\begin{cases} D_f' = (-2, \frac{a}{2}] \\ D_g' = [-2, \frac{a}{2}) \end{cases} \rightarrow \begin{cases} a+1 = -2 \rightarrow a = -3 \\ b-1 = \frac{a}{2} \rightarrow b = -\frac{1}{2} \end{cases}$$

$$\rightarrow a-b = -3 - (-\frac{1}{2}) = -\frac{5}{2}$$

$$y_1 = f\left(\frac{x}{2}+1\right) \rightarrow |2f(m)-1| \rightarrow -\frac{1}{2} \leq \frac{x}{2} \leq \frac{1}{2} \rightarrow -1 \leq x \leq 1$$

$$y_2 = \sqrt{|2f(m)-1|} \rightarrow D_{y_1} = [-\frac{1}{2}, \frac{1}{2}]$$

$$y_1 = f(m) = f(t) \rightarrow R_f(t) = [-1, 2]$$

$$R'_{\text{ext}} \rightarrow \sqrt{\frac{(-1 \times 2) - \sqrt{2}}{-2}}, \frac{(2 \times 2) - \sqrt{2}}{2} \xrightarrow{\text{نقطه}} R_{\text{ext}} = \sqrt{[0, \frac{1}{2}]}$$

$$\rightarrow R_f = [0, \sqrt{2}]$$

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

$$m+g(m) < 0 \rightarrow m+1 + \left| \frac{m-1}{2m-1} \right| < 0 \rightarrow \left| \frac{m-1}{2m-1} \right| < -m-1$$

$$+ \left| \frac{m-1}{2m-1} \right| < -m-1 \rightarrow \frac{m-1}{2m-1} - m-1 < 0 \rightarrow \frac{m-1-2m^2-2m-2}{2m-1} < 0$$

$$- \left| \frac{m-1}{2m-1} \right| < -m-1 \rightarrow \frac{m-1}{2m-1} + m+1 < 0 \rightarrow \frac{m-1+2m^2+2m+2}{2m-1} < 0$$

$$\xrightarrow{\text{نقطه}} \begin{matrix} \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \end{matrix}$$

$$\rightarrow (-\sqrt{2}, -\sqrt{2})$$

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

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

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

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

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