

$$\frac{x+2}{3} \in D_{f(x)} \Rightarrow -2 \leq \frac{x+2}{3} \leq 4 \rightarrow -10 \leq x+2 \leq 12$$

$$\rightarrow -12 \leq x \leq 10$$

$$\rightarrow -4 \leq x \leq 4 \rightarrow D = [-4, 4]$$

(۲)

۱

$$x \in [-2, 2] \rightarrow -2 \leq x \leq 2 \rightarrow -4 \leq 2x \leq 4 \rightarrow -1 \leq x-2 \leq 5$$

$$\rightarrow D_{f(x)} = [-1, 5]$$

(۲)

۲

$$x \in [-1, 2) \rightarrow -1 \leq x < 2 \rightarrow -2 \leq x+1 < 3 \rightarrow -2 \leq x+1 < 1$$

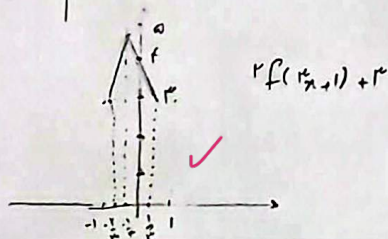
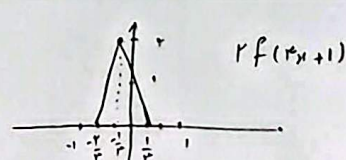
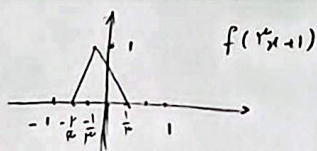
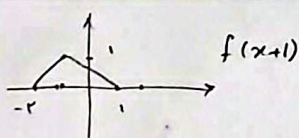
$$\rightarrow -1 \leq \frac{x+1}{2} < 0$$

$$\rightarrow D_{f(x)} = [-1, 0) \rightarrow r \cdot \omega x \in D_{f(x)}$$

$$\rightarrow -1 \leq r \cdot \omega x < 0 \rightarrow -r \leq -\omega x < r \rightarrow -\frac{r}{\omega} < x \leq \frac{r}{\omega} \rightarrow D_{f(r \cdot \omega x)} = \left(-\frac{r}{\omega}, \frac{r}{\omega}\right]$$

(۲)

۳

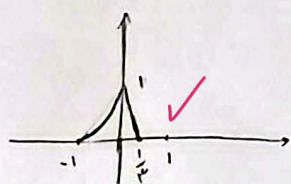


(۲)

۴

$$D_{f(x)} = [1, \omega] \rightarrow D_{f(r \cdot \omega x)} \text{ و } -1 \leq r \cdot \omega x \leq \omega \rightarrow -1 \leq -r \omega x \leq r \rightarrow -1 \leq x \leq \frac{1}{r}$$

$$\rightarrow D_{f(r \cdot \omega x)} = \left[-1, \frac{1}{r}\right], R_{f(r \cdot \omega x)} = \left[\frac{\omega}{r}, \frac{\omega}{r}\right] = [0, 1]$$



$$r \cdot \omega x = r \rightarrow \omega x = 1 \rightarrow x = \frac{1}{\omega}$$

$$\frac{r}{\omega} = 1 \rightarrow A \Big|_r$$

نقش ۲، ۱

(۲)

۵

$$C_{\theta}^y: \quad \frac{-\frac{1}{20}}{\frac{-1}{10} - \frac{1}{10}} = \frac{1}{0} \rightarrow \frac{-1}{10} \left(\frac{9}{10} \right) + \frac{1}{0} \left(\frac{1}{0} \right) + 1 = \frac{-\frac{1}{10} + \frac{9}{10}}{\frac{1}{0}} + 1 = \frac{\frac{8}{10}}{\frac{1}{0}} + 1 = \frac{4}{0} + 1 = \frac{4}{0}$$

$$R_{eq} = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2}} = \frac{1}{\frac{1}{10} + \frac{1}{10}} = 5 \Omega$$

$$G = -\frac{1}{r} \left(\lambda - \frac{1}{2} \right) + \frac{1}{2} \left(\lambda - \frac{1}{2} \right) + 1 + \frac{r}{r_0} - \frac{1}{r} \left(\frac{r}{r_0} \right)^2 + \frac{r}{r_0} = 0 \Rightarrow \Delta = \frac{r}{r_0} + \frac{r}{r_0} \frac{r}{r_0} = \frac{r(r_0)}{r_0} = r$$

$$\rightarrow C = \frac{r}{r_0} + r = \frac{1}{2} + r = \lambda - \frac{1}{2} \Rightarrow \lambda = \frac{r}{2} + \frac{1}{2} = \frac{r}{2} + 1$$

اوشن صفحه بعد هم همین است

فرض: $A' \mid K \rightarrow r_x + r = 1 \rightarrow r_x = -1 \rightarrow n = \frac{-1}{\frac{1}{\sqrt{2}}} = \alpha$
 $y_A = \beta = 1 - r_f(1) = 1 - \lambda = \alpha$

$$\rightarrow \alpha\beta = \frac{V}{\mu}$$

$$x_{-1} \in P_f \Rightarrow a < x_{-1} \leq c \rightarrow a_{+1} < x \leq \omega \rightarrow D_{f(x_{-1})} = (a_{+1}, \omega]$$

$$x_{i+1} \in D_g \Rightarrow -1 \leq x_{i+1} < b \rightarrow -r \leq x < b-1 \rightarrow D_g(x_{i+1}) = [-r, b-1)$$

$\rightarrow D_{f(x-1)} \cap D_{g(x+1)} = (-r, a) \rightarrow$

 $\Rightarrow b-1 = a \rightarrow b = a+1$
 $a+1 = -r \rightarrow a = -r-1$
 $a-b = -r-1-a = -r-1-(-r-1) = -r-1+r+1 = 0$

$$x \in [-1, \omega] \Rightarrow -1 \leq x \leq \omega \rightarrow -\frac{1}{x} \leq \frac{x}{x} \leq \frac{\omega}{x} \rightarrow -\frac{1}{x} \leq \frac{x}{x} + 1 \leq \frac{\omega}{x}$$

→ $D_{f(x)} = \left[-\frac{1}{x}, \frac{1}{x} \right] \rightarrow |x f(x) - x| \geq 0 \rightarrow$ مقياس قابل قبول

$$\rightarrow D_{g_r} = \begin{bmatrix} -\frac{1}{r} & \frac{v}{r} \end{bmatrix}, \quad R_f = R_{y_1} = [-1, r] \rightarrow -1 \leq f(x) \leq r \rightarrow -r \leq \frac{1}{f(x)} \leq 1$$

$$\rightarrow -\omega \leq r f(x) - r \leq 1 \rightarrow 0 \leq |r f(x) - r| \leq \omega \rightarrow R_{f,r} = \sqrt{[\omega, 1]} = [0, \sqrt{\omega}]$$

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

$$x + \left| \frac{x-1}{x-1} \right| + 1 < 0 \quad \rightarrow \quad x+1 < \left| \frac{x-1}{x-1} \right| < -x-1$$

$$\frac{x-1}{r_{n-r}} - (n+1) > 0 \rightarrow \frac{x-1 - (r_{n-r} - r - x)}{r_{n-r}} > 0 \rightarrow \frac{r_{n-r} - r_{n-r} + r + x}{r_{n-r}} < 0 \rightarrow \frac{\frac{1-\sqrt{2}}{r}}{\frac{1}{r} + \frac{1}{r} - \frac{1+\sqrt{2}}{r}}$$

$$\frac{x-1}{r_{n-r}} + (n+1) < 0 \rightarrow \frac{x-1 + r_{n-r} - r - x}{r_{n-r}} < 0 \rightarrow \frac{r_{n-r} - r}{r_{n-r}} < 0 \rightarrow \frac{-\sqrt{r}}{r} + \frac{\sqrt{r}}{r} + \frac{r}{r} \rightarrow \frac{-1}{r} + \frac{1}{r} + 1 = 1$$

$$\rightarrow x \in (-\infty, -\sqrt{2})$$

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