

۱۴

علی الهی

دوونم بر

کلاس

۷

پایه نهم تشریحی تکلیف شماره

$$D_f = [-1, 2]$$

$$\Rightarrow -1 \leq \frac{3n+2}{5} \leq 2 \Rightarrow -10 \leq 3n+2 \leq 10 \Rightarrow -12 \leq 3n \leq 18$$

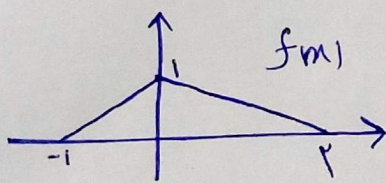
$$\Rightarrow -4 \leq n \leq 6$$

$$-12 \leq 3n \leq 18 \Rightarrow -4 \leq n \leq 6 \Rightarrow -8 \leq 3n-2 \leq 16$$

$$-1 \leq n \leq 2 \Rightarrow -2 \leq 3n+1 \leq 7 \Rightarrow -1 \leq \frac{3n+1}{2} \leq 3.5$$

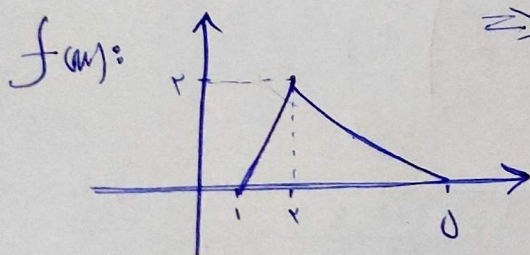
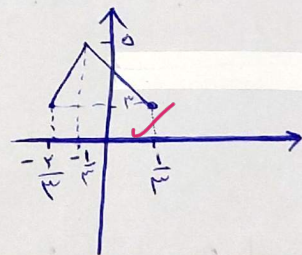
$$\Rightarrow -1 \leq 2-3n \leq 7 \Rightarrow -5 \leq -3n \leq 5 \Rightarrow \frac{5}{3} \geq n \geq -\frac{5}{3}$$

وقت!



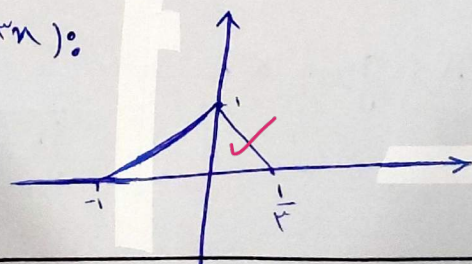
$$\Rightarrow D_f = [-1, 2] \Rightarrow -1 \leq 3n+1 \leq 2 \Rightarrow -2 \leq 3n \leq 1 \Rightarrow -\frac{2}{3} \leq n \leq \frac{1}{3}$$

$$\Rightarrow f(3n+1) + 1$$



$$\Rightarrow D_f = [1, 2] \Rightarrow 1 \leq 2-3n \leq 0 \Rightarrow -1 \leq -3n \leq 2 \Rightarrow \frac{1}{3} \geq n \geq -\frac{2}{3}$$

$$\Rightarrow f(2-3n)$$



رأسی (سفی) : (۱ و ۲) $\xrightarrow{2n+2}$ رأسی سفید : $\xrightarrow{2n+2}$

$$XB = \frac{v}{r} \Leftrightarrow \begin{pmatrix} -1 \\ \frac{1}{r} \end{pmatrix} \cdot \begin{pmatrix} A \\ B \end{pmatrix}$$

(۱)

v

صفحه آفند

$$u_s = \frac{\frac{r}{0}}{\frac{-r}{0}} = \frac{r}{0}, \quad g_s = -\frac{1}{r} \left(\frac{r}{0} \right) + \frac{r}{0} \left(\frac{r}{0} \right) + 1 = -\frac{r}{r0} + \frac{r}{r0} + 1 = -\frac{r}{r0} + \frac{r}{r0} + 1 = 1$$

$$= \frac{-r + r + r0}{r0} = \frac{r0}{r0} = 1$$

صفحه آفند

f: $a(x-1) \leq r \Rightarrow a+1 \leq x \leq 0$ $O = (-r, 0)$

g: $-1 \leq x+1 < b \Rightarrow -2 \leq x < b-1$

$$\begin{cases} b-1 = 0 \Rightarrow b=1 \\ a+1 = -2 \Rightarrow a=-3 \end{cases}$$

$$a-b = -3-1 = -4$$

(۲)

قرصه

$$O_{f_1} = O_{f_2} = [-r, 0]$$

صفحه آفند

$$R_f \Rightarrow \text{برابر} \rightarrow [-r, 0] \xrightarrow{-r} [-0, 0] \Rightarrow [0, 0]$$

$$\xrightarrow{r} R_{g_r} = [0, \sqrt{r}]$$

(۱/۵)

$$g_m = \left| \frac{x-1}{r(x-r)+1} \right| + 1 \Rightarrow g_m = \left| \frac{x-1}{rn-r} \right| + 1$$

صفحه آفند

$$\Rightarrow n + g_m < 0$$

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

$$\leq \frac{rn^2-rn-1}{rn-r} < 0 = \frac{rn^2-r}{rn-r} < 0$$

جواب : $(-\infty, -1) \cup (r, \frac{r+1}{r})$

$$\frac{r-\sqrt{r}}{r} + 1 \leq \frac{r+\sqrt{r}}{r}$$

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

رأس: $(h, K) \xrightarrow{\text{معادله خط}} y = a(n-h)^2 + K = -\frac{1}{r}n^2 + \frac{r}{\Delta}n + 1 \rightarrow a = -\frac{1}{r}$ -9

رأس: $(4, 3) \rightarrow y = -\frac{1}{r}(n-4)^2 + 3 \xrightarrow{y=0} -\frac{1}{r}(n-4)^2 = -3 \rightarrow \begin{cases} n=7 \\ n=1 \end{cases}$

رأس $\left| \begin{matrix} 1 \\ 4 \end{matrix} \right. \Rightarrow \begin{cases} r_n + 2 = 1 \rightarrow n = -\frac{1}{r} \Rightarrow \alpha = -\frac{1}{r} \\ y = 1 - r f(1) = 1 - r(4) = -7 \Rightarrow \beta = -7 \end{cases} \Rightarrow \alpha\beta = \boxed{\frac{7}{r}}$ -v

$D_{y_1} = [-3, 5] \rightarrow -3 \leq n \leq 5 \rightarrow -\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{7}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{7}{r}\right]$ -9

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

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

$g(n) = \left| \frac{(n-2)+1}{2(n-2)+1} \right| + 1 = \left| \frac{n-1}{2n-3} \right| + 1$ -10

$n + g(n) < 0 \rightarrow \left| \frac{n-1}{2n-3} \right| < -1-n$ از به قدر مطلق بزرگتر شده پس باید مثبت باشد: $-1-n > 0 \rightarrow n < -1$

$\xrightarrow{n < -1} \frac{n-1}{2n-3} < -1-n \rightarrow \frac{2n^2-4}{2n-3} < 0 \rightarrow \frac{2(n-\sqrt{2})(n+\sqrt{2})}{2n-3} < 0$

