

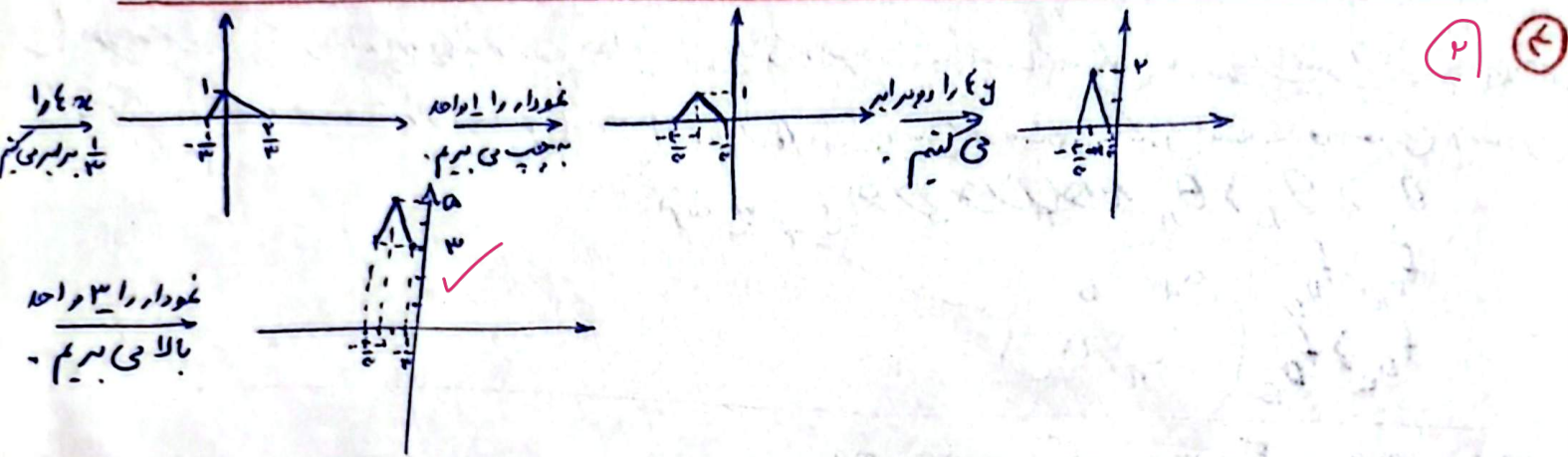
دوازدهم، سری ۱ تکلیف شماره ۱۹ (در روش کسایان) $D_f = [-4, 4]$ (۲) ①

$-2 \leq \frac{3x+2}{5} \leq 4$ $-10 \leq 3x+2 \leq 20$ $-12 \leq 3x \leq 18$ $-4 \leq x \leq 6$

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$-1 \leq x \leq 3$ $-3 \leq 3x \leq 9$ $-2 \leq 3x+1 \leq 10$ $-1 \leq \frac{3x+1}{2} \leq 5$ (۲) ③

$-1 \leq 2-5x \leq 5$ $-3 \leq -5x \leq 3$ $-\frac{3}{5} \leq x \leq \frac{3}{5}$ $D_f = [-\frac{3}{5}, \frac{3}{5}]$



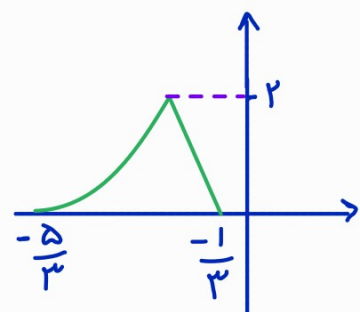
$-r \leq x \leq a$ $-\frac{r}{r} \leq \frac{x}{r} \leq \frac{a}{r}$ $-\frac{1}{r} \leq \frac{x}{r} + 1 \leq \frac{a}{r}$ $D_{f(x)} = [-\frac{1}{r}, \frac{a}{r}]$ (7) (9)
 $-1 \leq y \leq r$ $-r \leq ry \leq r$ $-a \leq ry - r \leq 1$ $0 \leq \sqrt{ry - r} \leq \sqrt{a}$ $R_{g_r} = [0, \sqrt{a}]$

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

$\underbrace{x}_{\text{جمله}} + \underbrace{\left| \frac{x-1}{rx-r} \right| + 1}_{\text{شبه}} < 0 \quad \xrightarrow{x < 0} \Rightarrow \underbrace{\frac{x-1}{rx-r}}_{\text{شبه}} > 0$ $x + \frac{x-1}{rx-r} + 1 < 0$

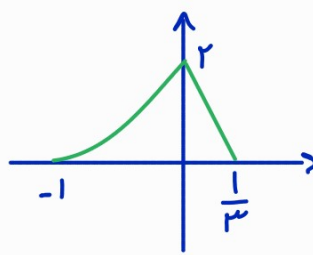
~~$rx^2 - rx + x - 1 + rx - r < 0$~~

$rx^2 - rx + x - 1 + rx - r < 0$
 $rx^2 - r < 0$ $x^2 > r$ $x < -\sqrt{r}$



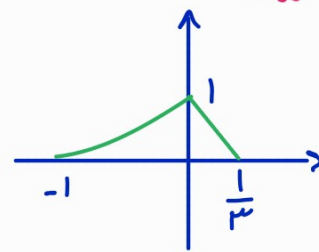
$$y = f(-r_n)$$

واحد به راست $\frac{r}{r}$



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

$$y = f(r - r_n)$$



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

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$$\left. \begin{array}{l} \text{رأس} \\ 1 \\ r \end{array} \right| \Rightarrow \begin{cases} r_n + r = 1 \rightarrow n = -\frac{1}{r} \Rightarrow \alpha = -\frac{1}{r} \\ y = 1 - r f(1) = 1 - r(f) = -v \Rightarrow \beta = -v \end{cases}$$

$$\Rightarrow \alpha\beta = \boxed{\frac{v}{r}}$$

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