

نام و نام خانوادگی پاستنامه تشریحی تکلیف شماره ۱... کلاس ...

$1-x^2$

$\rightarrow 1-x^2 \rightarrow R_f = [0, 1]$

$R_{f \cup g} = f \cup g = [1, 1]$

$f = \{(-1, 2), (0, 1), (1, 4)\}$
 $g = \{(-1, 2), (0, 5), (1, 4)\}$
 $h = \{(-1, 0), (0, 10), (1, 0)\}$

$D_f = [2, +\infty) \rightarrow R_f = [2, +\infty)$
 $D_g = (-\infty, 2] \rightarrow R_g = (-\infty, 2]$
 $R_f \cup R_g = (-\infty, 2] \cup [2, +\infty)$

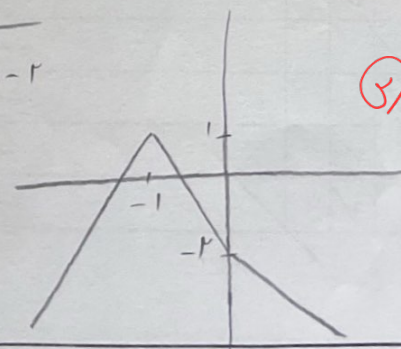
$-\frac{x^2}{x} + x + 3 > \frac{x}{x} \rightarrow 0 > \frac{x^2}{x} - x - \frac{x}{x} \rightarrow 0 > x^2 - x - 1$
 $\rightarrow (x+1)(x-2) < 0$
 $\rightarrow (a, b) = (-1, 2)$
 $b = 2, a = -1$

$y = |x-1| + |x-2| + |x-3|$
 $n=1 \rightarrow$
 $n=2 \rightarrow$
 $n=3 \rightarrow$

$\rightarrow \min_y = 1$

$y = |x| - 2|x+1|$
 $n=0 \rightarrow$
 $n=-1 \rightarrow$

$n+2 \mid -x-2 \mid -x-2$



$R_f = (-\infty, 1]$

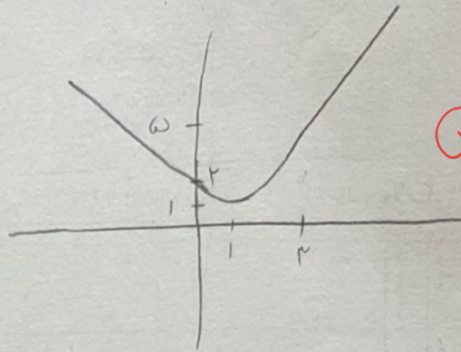
$$y = \frac{x^r + \omega x + m}{x+1} \rightarrow xy + y = x^r + \omega x + m \rightarrow x^r + (\omega - y)x + m - y = 0$$

$$\rightarrow x = \frac{y - \omega \pm \sqrt{(\omega - y)^2 - r(m - y)}}{r} \in \mathbb{R} \rightarrow (\omega - y)^2 - r(m - y) \geq 0$$

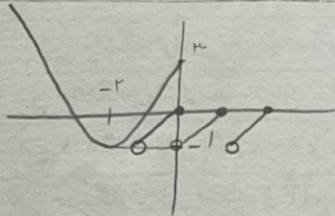
باید درجه دوم باشد

$$y^r - 10y + r\omega + ry - rm \leq 0 \rightarrow y^r - 4y + r\omega - rm \leq 0 \Rightarrow \boxed{\mathbb{R} \text{ جز } m = \frac{r}{4} \text{ می باشد}}$$

$$\begin{cases} x+r & x \geq r \rightarrow x \geq 0 \\ x^r - rx + r & 0 \leq x < r \rightarrow -\frac{b}{a} = 1 \rightarrow y = 1 = \min y \\ |x| + r & x < 0 \rightarrow -x + r \end{cases}$$



$$\boxed{R_f = [1, +\infty)}$$



$$x^r + rx + r \quad x \leq 0 \rightarrow -\frac{b}{a} = -r \rightarrow y = -1$$

$$R_I = [-1, +\infty)$$

$$[rx] - rm \rightarrow x > 0 \rightarrow -1 < [rx] - rm \leq 0$$

$$-1 < [rx] - rm \leq 0 \quad R_{II} = (-1, 0]$$

$$R_I \cup R_{II} = \boxed{[-1, +\infty)}$$

$$\begin{aligned} rx + r \geq 0 &\rightarrow rx \geq -r \rightarrow x \geq -\frac{r}{r} \rightarrow b = -\frac{r}{r} \\ -\sqrt{rx+r} &\rightarrow \text{graph} \rightarrow a+1 = \omega \rightarrow \underline{a = r} \end{aligned} \quad \left. \begin{aligned} ab &= -\frac{r}{r}(r) = \boxed{-r} \end{aligned} \right\}$$

$$f(m) + g(m) = r\sqrt{1+r} + r\sqrt{1-2r} \xrightarrow{\text{PCOT}} 9(\sqrt{1-2r} + \sqrt{1+r}) \xrightarrow{\text{PCOT}} r(\sqrt{1-2r} + \sqrt{1+r})$$

$$\rightarrow g(x) = \sqrt{1+2x} - \sqrt{1-2x}$$

$$\frac{f(x)}{4} - \frac{g(x)}{r} = \sqrt{1-2x}$$



$$R = [-1, \sqrt{r}]$$

$$x^2 + (a-y)x + m-y = 0 \rightarrow x = \frac{y-a \pm \sqrt{(a-y)^2 - 4(m-y)}}{2} \rightarrow \dots \quad (4)$$

$$\left\{ \begin{array}{l} a > 0 \rightarrow 1 > 0 \\ \Delta < 0 \rightarrow m < 4 \rightarrow \end{array} \right.$$

$$\Delta < 0 \rightarrow m < 4 \rightarrow$$

m نصابه بزرگتر از ۴ باشد

$$m = 1, 2, 3$$

$$\rightarrow y^2 - 4y + a - 4m > 0$$