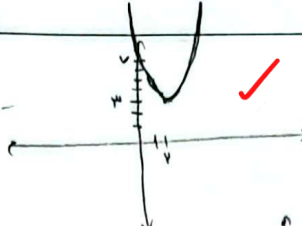


نام و نام خانوادگی علی جمالی پاسخنامه تشریحی تکلیف شماره ۱۲۰ ... کلاس ... ریاضی پایه اول ...

الف) $x_v = -\frac{b}{2a} = -\frac{f}{2} = 2$ $y_v = 2^2 - 4 \cdot 2 + 7 = 3$ $a > 0$ و u_4 و $x=0 \Rightarrow y=7$ ب) $x_v = -\frac{b}{2a} = -\frac{f}{-2} = 2$ $y_v = -(2)^2 + 4(2) - 1 = 3$ $a < 0$ و u_4 و $x=0 \Rightarrow y=-1$  	(۲) ۱
$\Delta = b^2 - 4ac = (-4)^2 - 4(1)(\frac{1}{4}m + 2) = 16 - m - 8 = 8 - m$ $\Delta = m^2 - 2m - 10 = (m-5)(m+2)$ الف) $\Delta > 0 \Rightarrow m \in (-\infty, -2) \cup (5, +\infty)$ ب) $\Delta = 0 \Rightarrow m \in \{-2, 5\}$ ج) $\Delta < 0 \Rightarrow m \in (-2, 5)$ د) $\Delta \geq 0 \Rightarrow m \in (-\infty, -2] \cup [5, +\infty)$	(۲) ۲
$\Delta = b^2 - 4ac = (-4(m+1))^2 - 4(1)(m-2) = 16(m^2 + 2m + 1) - 4m + 8 = 16m^2 + 28m + 20$ $16m^2 + 28m + 20 > 0 \Rightarrow 4m^2 + 7m + 5 > 0$ $P = \frac{c}{a} = \frac{5}{4}$ $S = \frac{-b}{a} = \frac{7}{4}$ الف) $S < 0, P > 0 \Rightarrow \frac{5}{4} > 0$ و $\frac{7}{4} < 0 \Rightarrow m > 2$ ب) $S < 0, P < 0 \Rightarrow \frac{5}{4} < 0$ و $\frac{7}{4} < 0 \Rightarrow m < -2$ ج) $S > 0, P < 0 \Rightarrow \frac{5}{4} < 0$ و $\frac{7}{4} > 0 \Rightarrow m < -2$ د) $S > 0, P > 0 \Rightarrow \frac{5}{4} > 0$ و $\frac{7}{4} > 0 \Rightarrow m > 2$	(۲) ۳
الف) توجه کنید که عرض از مبدأ ۱۰ است. $m-2 < 0 \Rightarrow m < 2$ $P = \frac{c}{a} = \frac{10}{m-2} < 0 \Rightarrow m < 2$ $m \in (-\infty, 2)$ ب) $\frac{-b}{2a} = \frac{4(m+1)}{4(m-2)} = \frac{m+1}{m-2} = -2 \Rightarrow m+1 = -2m+4 \Rightarrow 3m = 3 \Rightarrow m = 1$	(۲) ۴
$\Delta \geq 0 \Rightarrow b^2 - 4ac \geq 0 \Rightarrow f \sin^2 \alpha - f \geq 0 \Rightarrow \sin^2 \alpha \geq 1 \Rightarrow \sin \alpha = 1$ $S \geq 0 \Rightarrow \frac{4 \sin \alpha}{\sqrt{f}} \geq 0 \Rightarrow \sin \alpha \geq 0 \Rightarrow \sin \alpha = 1$ $\frac{4x^2}{3} - 2x + \frac{4}{3} = 0 \Rightarrow (\sqrt{\frac{4}{3}}x - \sqrt{\frac{4}{3}})^2 = 0 \Rightarrow x = \frac{\sqrt{\frac{4}{3}}}{\sqrt{\frac{4}{3}}} = \frac{2}{2} = 1$	(۲) ۵

$$y = \frac{(y^2 x + 1)(x-1)(y^2 x - \omega)(x+1)}{-(x+1)(x-1)} = -(y^2 x + 1)(y^2 x - \omega) \quad x \neq 1, -1$$

$$\max -y^2 x^2 + 14yx + \omega = \frac{-\Delta}{4a} = \frac{-(149 + 140)}{-4} = \boxed{\frac{289}{4}} \checkmark$$

$$yS = \omega P + V \Rightarrow y\left(\frac{m+y}{m}\right) = \omega\left(\frac{-y}{m}\right) + V \Rightarrow ym + y = -\omega + Vm \Rightarrow fm = 14 \Rightarrow m = f \checkmark$$

$$\left. \begin{aligned} x^y + \beta^y &= S^y - P^y \\ S &= \frac{y}{f} = \frac{y}{y} \\ P &= \frac{-y}{f} = \frac{-y}{y} \end{aligned} \right\} \alpha^y + \beta^y = \frac{y}{f} + 1 = \boxed{\frac{13}{4}} \text{ دقت!}$$

$$\frac{f\alpha + \beta^0}{\omega\beta^y} = \frac{\alpha^y\beta^y + \beta^0}{\omega\beta^y} = \frac{\alpha^y + \beta^y}{\omega} = \frac{S^y - P^y}{S} = S^y - P^y = y\omega - y = \boxed{19} \checkmark$$

$$\begin{aligned} x^y - \omega x + y &= 0 \\ P = y &\Rightarrow \alpha^y \beta^y = f \\ S &= \omega \end{aligned}$$

$$\left. \begin{aligned} x=0 &\Rightarrow y=c \\ x=0 &\Rightarrow y=f \end{aligned} \right\} \Rightarrow c=f$$

$$\left. \begin{aligned} y(y) + 10 &= a(y)^y + b(y) + f \Rightarrow 6a + 2b = 10 \Rightarrow 3a + b = 5 \\ y(-4) + 10 &= a(-4)^y + b(-4) + f \Rightarrow 9a - 3b = 0 \Rightarrow 3a - b = 0 \end{aligned} \right\} \alpha=1, b=3$$

$$y = x^y + 3x + f$$

$$\frac{-b}{3a} = \boxed{\frac{-3}{3}} \checkmark$$

$$y^2 x^y + (m+1)x + m + 4, x \text{ ماس} \Rightarrow$$

$$y^2 x^y + (m+1)x + m + 4 - x = 0 \Rightarrow \Delta = 0 \rightarrow \text{یک نقطه تقاطع}$$

$$y^2 x^y + m^2 x + m + 4 = 0 \quad \Delta = m^2 - f(1)(m+4) = 0$$

$$m^2 - 1m - f1 = 0 \Rightarrow (m-14)(m+1) = 0 \Rightarrow \boxed{m = -1} \checkmark \text{ ناجیه دوم}$$