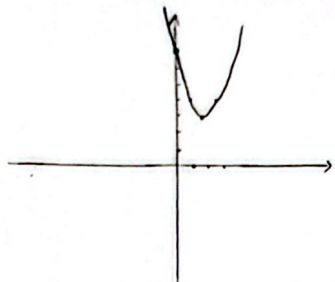
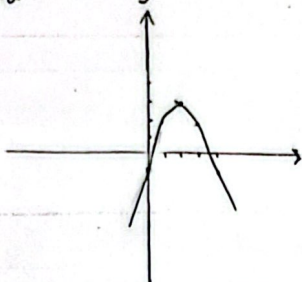


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نام و نام خانوادگی پاسخنامه تشریحی شماره ۱۲... کلاس ۱۱A

الف) $C = 7 / x \leq \frac{b}{x_0} \leq 7 \Rightarrow y \leq 4 - 1 + 7 = 10$ 	ب) $C = -1 / x \leq \frac{b}{x_0} \leq -1 \Rightarrow y \geq -4 + 1 - 1 = -4$ 
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الف) $\Delta > 0 \rightarrow (m+1)^2 - 4(\frac{1}{4}m+2) > 0 \rightarrow m^2 - 2m - 15 > 0 \Rightarrow \Delta \leq 4, m \leq 5, -3 \rightarrow \frac{-3}{1+1} \leq \frac{5}{1+1} \Rightarrow (-3, 5) \cup (5, +\infty)$

ب) $\Delta = 0 \rightarrow (m+1)^2 - 4(\frac{1}{4}m+2) = 0 \Rightarrow m^2 - 2m - 15 = 0, (m-5)(m+3) = 0 \Rightarrow m = 5, -3$

ج) $\Delta < 0 \rightarrow m^2 - 2m - 15 < 0, m \leq 5, -3 \rightarrow \frac{-3}{1+1} \leq \frac{5}{1+1} \Rightarrow (-3, 5)$

د) $\Delta > 0 \rightarrow m^2 - 2m - 15 > 0 \rightarrow \frac{-3}{1+1} \leq \frac{5}{1+1} \rightarrow R - (-3, 5)$

الف) $\Delta > 0 \rightarrow (-2m-2)^2 - 4(m-2) \rightarrow m^2 - 4m + 21 > 0 \rightarrow$ همواره مثبت

ب) $\frac{c}{a} \leq \frac{1}{m-2} > 0 \rightarrow m-2 > 0, m > 2 / \frac{-b}{a} \leq \frac{2m+2}{m-2} < 0 \rightarrow \frac{-1}{1+1} \leq \frac{2}{1+1} \Rightarrow (-1, 2)$

با هیچ مقدار m در هیچ متنی از حد $m > 2 \cap (-1, 2) = \emptyset$ و $P < 0$

ب) $\Delta > 0, m^2 - 4m + 21 > 0$ همواره مثبت $x_1 < 0 < x_2, |x_1| > |x_2| \Rightarrow x_1 x_2 < 0, x_1 + x_2 < 0$

$\frac{c}{a} \leq \frac{1}{m-2} < 0, m-2 < 0, m < 2, \frac{-b}{a} < 0 \Rightarrow \frac{2m+2}{m-2} < 0 \rightarrow \frac{-1}{1+1} \leq \frac{2}{1+1} \Rightarrow (-1, 2) \Rightarrow \emptyset \cap (-1, 2) = \emptyset$

الف) $\Delta > 0 \rightarrow (-2m-2)^2 - 4(m-2) = (m^2 - 4m + 21) > 0 \rightarrow m^2 - 4m + 21 > 0 \rightarrow$ همواره مثبت است. هیچ وجهی در حد نیست.

داریم فقط باید $a=0$ باشد $m \neq 2 \Rightarrow$

ب) $\frac{c}{a} < 0 \rightarrow \frac{1}{m-2} < 0 \xrightarrow{1 > 0} m-2 < 0 \Rightarrow m < 2$

ب) $\frac{-b}{x_0} \leq -2 \Rightarrow -b \leq -2a, b \leq 2a \Rightarrow -2m-2 \leq 2m-4 \Rightarrow -4m \leq -4, m \geq 1$

$\Delta = 0 \rightarrow 4(\frac{4}{9}x^2 - 2\sin x + \frac{4}{9}) = 0 \rightarrow 4x^2 - 12\sin x + 16 = 0 \rightarrow \Delta \leq 144\sin^2 - 144 = 0$

$144(\sin^2 - 1) = 0 \Rightarrow \cos x = 0, x \leq \pi + \frac{\pi}{2} \rightarrow \sin x = -1 + 1$

$x = \frac{-b}{x_0} \leq \frac{12\sin x}{4} \leq \frac{3}{1} \sin x \xrightarrow{\alpha = -\frac{\pi}{2}} x = -\frac{3}{1}$ و $\sin x = 1 \xrightarrow{\alpha = \frac{\pi}{2}} x = \frac{3}{1}$

$$y = \frac{(1-x)(-3x-1)(2x-\omega)(x+1)}{(1-x)(1-x)} = (-3x-1)(2x-\omega) = -4x^2 + 1\omega x - 2x + \omega = -4x^2 + 1\omega x + \omega$$

$$x_{\max} = \frac{-b}{2a} = \frac{-1\omega}{-4} \Rightarrow y_{\max} = -4\left(\frac{1\omega}{4}\right)^2 + 1\omega\left(\frac{1\omega}{4}\right) + \omega = \frac{1\omega^2}{4}$$

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$$ws = \omega p + v \rightarrow s = \frac{-b}{a} = \frac{m+v}{m}, p = \frac{c}{a} = \frac{-v}{m} \Rightarrow w\left(\frac{m+v}{m}\right) = \omega\left(\frac{-v}{m}\right) + v$$

$$\frac{wm+v+0}{m} = v, \quad wm+14 = vm \Rightarrow m=14, m=4$$

$$\alpha^v + \beta^v (\alpha + \beta)^v - v\alpha\beta = \left(\frac{w}{v}\right)^v - v\left(\frac{-v}{v}\right) = \frac{9}{f} + 1 = \frac{13}{f}$$

$$\alpha + \beta = \frac{c+v}{f} = \frac{4}{f} = \frac{w}{v}, \quad \alpha\beta = \frac{-v}{f} = -\frac{1}{v}$$

$$\frac{c\alpha + \beta^w}{\omega\beta^v} = \frac{c\alpha}{\omega\beta^v} + \frac{\beta^w}{\omega\beta^v} = \frac{c\alpha}{\omega\beta^v} + \frac{\beta^w}{\omega} \quad / \quad \alpha\beta = \frac{c}{a} = v \Rightarrow \beta = \frac{v}{\alpha} \Rightarrow \frac{c\alpha}{\omega\beta^v} = \frac{c\alpha}{\omega} \cdot \frac{\alpha^v}{v^v} = \frac{c\alpha^v}{\omega v^v}$$

$$\Rightarrow \frac{\alpha^w}{\omega} + \frac{\beta^w}{\omega} = \frac{5^w - 3^w}{\omega} = \frac{12\omega - 3(1)(\omega)}{\omega} = \frac{9\omega}{\omega} = 9$$

$$s = \omega, \quad p = v$$

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$$x = -3, x = 2 \Rightarrow a_2x^2 + b_2x + c = 2x + b \xrightarrow{x=2} c + 2b + c = 1 \Rightarrow c + 2b = 0, \quad a_2 + b = \omega$$

$$x = -3, \quad 9a - 3b + c = f \Rightarrow 9a - 3b = 0, \quad 3a = b \Rightarrow 2a + 3a = \omega, \quad \omega a = \omega, \quad a = 1 \Rightarrow b = 3$$

$$y = ax^2 + bx + c \Rightarrow x = \frac{-b}{2a} = \frac{-3}{2}$$

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$$y = ax \Rightarrow 2x^2 + (m+1)x + m + 4 = x \Rightarrow 2x^2 + (m+1)x - x + m + 4 = 0$$

$$2x^2 + mx + m + 4 = 0 \Rightarrow 2x^2 + mx + m + 4 \xrightarrow{\Delta \geq 0} \Delta = m^2 - 4(m+4) = m^2 - 4m - 16$$

$$m = \frac{4 \pm \sqrt{4^2 + 4 \cdot 16}}{2} = \frac{4 \pm 20}{2} \Rightarrow m = 12, -4$$

اگر $m = 12$ ← نقطه برخورد (۱، ۱) در ناحیه اول و سوم

اگر $m = -4$ ← نقطه برخورد (۳، -۳) در ناحیه دوم

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