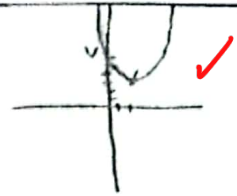


۱۴

یا (معم) میر ۱۲

امیر محمد فردوسی

الف) $y = x^2 - 2x + 7 - \frac{6}{x} = -\frac{(-8)}{x(1)} = 1 \rightarrow x^2 - 2x + 7 - \frac{6}{x} = 1$
 ب) $y = -x^2 + 4x - 1 \rightarrow -\frac{6}{x} = \frac{-8}{x(1)} = 1 \rightarrow -x^2 + 4x - 1 = 1$



(۲)

$2x^2 + (m+1)x + \frac{1}{4}m + 2 = 0$

الف) $\Delta > 0 \rightarrow (m+1)^2 - 4(2)(\frac{1}{4}m + 2) > 0 \rightarrow m^2 - 2m - 10 \rightarrow (m-5)(m+3) > 0 \rightarrow \frac{m}{+1-1+} \rightarrow m > 5 \text{ or } m < -3$
 ب) $\Delta = 0 \rightarrow (m+1)^2 - 4(2)(\frac{1}{4}m + 2) = 0 \rightarrow m^2 - 2m - 10 \rightarrow (m-5)(m+3) = 0 \rightarrow m = 5 \text{ or } m = -3$
 ج) $\Delta < 0 \rightarrow (m+1)^2 - 4(2)(\frac{1}{4}m + 2) < 0 \rightarrow m^2 - 2m - 10 \rightarrow (m-5)(m+3) < 0 \rightarrow \frac{m}{+1-1+} \rightarrow -3 < m < 5$
 د) $\Delta \geq 0 \rightarrow (m+1)^2 - 4(2)(\frac{1}{4}m + 2) \geq 0 \rightarrow m^2 - 2m - 10 \rightarrow (m-5)(m+3) \geq 0 \rightarrow \frac{m}{+1-1+} \rightarrow m \geq 5 \text{ or } m \leq -3$

(۲)

$y = (m-2)x^2 - 2(m+1)x + 10$

الف) $\frac{c}{a} > 0 \rightarrow \frac{10}{m-2} > 0 \rightarrow \frac{1}{+1-1+} \rightarrow m > 2$
 $-\frac{b}{a} < 0 \rightarrow \frac{-(-2m-2)}{m-2} < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow \frac{1}{+1-1+} \rightarrow -1 < m < 2$
 ب) $\frac{c}{a} < 0 \rightarrow \frac{10}{m-2} < 0 \rightarrow \frac{1}{-1-1+} \rightarrow m < 2$
 $-\frac{b}{a} < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow \frac{1}{+1-1+} \rightarrow -1 < m < 2$

(۲)

$y = (m-2)x^2 - 2(m+1)x + 10$

الف) $\frac{c}{a} < 0 \rightarrow \frac{10}{m-2} < 0 \rightarrow \frac{1}{-1-1+} \rightarrow m < 2$
 $\Delta > 0 \rightarrow (2m-2)^2 - 4(m-2)(10) > 0 \rightarrow 4m^2 + 4 - 40m + 20 > 0 \rightarrow 4m^2 - 40m + 24 > 0 \rightarrow \Delta < 0$

(۱.۵)

ب) $-\frac{b}{a} = 2 = -\frac{(-2m-2)}{m-2} \rightarrow \frac{2m+2}{m-2} = -2 \rightarrow 2m+2 = -2m+4 \rightarrow 4m = 2 \rightarrow m = \frac{1}{2}$

$\frac{2x^2}{3} - (2 \sin \alpha)x + \frac{2}{3} = 0 \rightarrow \Delta > 0 \rightarrow (-2 \sin \alpha)^2 - 4(\frac{2}{3})(\frac{2}{3}) > 0 \rightarrow 4 \sin^2 \alpha - \frac{16}{9} > 0 \rightarrow 4(\sin^2 \alpha - \frac{4}{9}) > 0 \rightarrow (\sin \alpha - \frac{2}{3})(\sin \alpha + \frac{2}{3}) > 0$

$\frac{2}{3} + 2 \sin \alpha + \frac{2}{3} \neq 0 \rightarrow 2 \sin \alpha = -\frac{4}{3} \rightarrow \sin \alpha = -\frac{2}{3}$
 الف) $\sin \alpha > 1$
 ب) $\sin \alpha < -1$
 ج) $\sin \alpha = \pm 1$

$y = (2n^2 - 2n - 1)(2n^2 - 2n - 1) \rightarrow y = (2n^2 - 2n - 1)^2$
 $-\frac{b}{a} = \frac{-1}{1} = -1 \rightarrow -4n^2 + 12n + 1$

اینو بایه بنده می توانی به آید و شوی به

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۲۴

$$\sin \alpha = 1 \rightarrow \frac{2n^2}{3} - 2n + \frac{3}{2} = 0 \rightarrow (2n-3)^2 = 0 \rightarrow n = \frac{3}{2}$$

امیر محمد فرزند جلیل

$$\sin \alpha = -1 \rightarrow \text{مقدار بیشه مقعر نیست}$$

اداره مطالعات

$$m^2 - (m+1)n - 2 = 0 \quad a^2 + b^2 = 2 \quad 2-2p$$

$$x - \frac{b}{a} = \frac{d}{a} + v \rightarrow \frac{2(m+1)}{m} = \frac{d}{m} + v \rightarrow \frac{2m+2}{m} = \frac{d}{m} + v \rightarrow \frac{2m+2}{m} = \frac{10}{m} + v \rightarrow 2m+2 = 10 + vm$$

$$2m+2 = 10 + vm \rightarrow m = 4 \rightarrow m = 4$$

$$5^2 - 2p - (-\frac{b}{a})^2 - 2(\frac{c}{a}) \rightarrow (\frac{m+1}{m})^2 - 2(\frac{2}{m}) - (\frac{2}{5})^2 - 2(-\frac{1}{5}) \rightarrow \frac{25}{15} + \frac{15}{15} = \frac{40}{15} = \frac{8}{3}$$

$$m^2 - 8n + 2 = 0 \quad \sum a + b^2$$

$$B^2 = aB = 2 \quad \frac{\partial}{\partial B^2} \quad S = d$$

$$B^2 = B \times B^2 \rightarrow B \times B \rightarrow 2B^2 \rightarrow 2$$

$$B^2 = B \times B^2 = 2B$$

$$B^2 = B \times B \rightarrow 2B$$

$$\sum a + b^2 = 2a + 2b \rightarrow 2(a+b) = 2$$

$$\delta B^2 \rightarrow \omega \times 2 = 10$$

$$\frac{20}{10} = 2$$

$$J = a_1 u^2 + b_1 u + c \quad y_p = k_1 u + 1 \quad \begin{vmatrix} 1 & 2 \\ -1 & -2 \end{vmatrix}$$

$$c = 2$$

$$a_1 u^2 + b_1 u + c = k_1 u + 1 \rightarrow \sum a - 2b + c = -2 \rightarrow \sum a - 2b = -4$$

$$2 \equiv 2(2) + 1 \equiv 5 \quad y_p = 2(-2) + 1 = -3 \rightarrow \begin{vmatrix} 1 & 2 \\ -1 & -2 \end{vmatrix} \rightarrow 2(2) + 1 = 5$$

$$a(-2^2) + b(-2) + c = -3 \rightarrow 4a - 2b + c = -3$$

$$\sum a + 2b + 10 = -3 \rightarrow \sum a + 2b = -13 \rightarrow 2a + b = -2$$

$$\begin{cases} \sum a + 2b = -2 \\ 2a + b = -2 \end{cases} \rightarrow \begin{cases} 2a + 4b = -4 \\ 2a + b = -2 \end{cases} \rightarrow \begin{cases} 3b = -2 \\ b = -\frac{2}{3} \end{cases}$$

$$2a - \frac{4}{3} = -2 \rightarrow 2a = -\frac{2}{3} \rightarrow a = -\frac{1}{3}$$

$$y = k$$

$$y = k_1 u + (m+1)u + m + 2 = n \rightarrow 2u^2 + (m+1)u + m + 2 - n = 0 \rightarrow 2u^2 + mu + m + 2 = 0$$

$$\Delta = 0 \rightarrow m^2 - 4(2)(m+2) = 0 \rightarrow m^2 - 8m - 16 = 0 \rightarrow (m-12)(m+4) = 0$$

$$m = 12 \quad \text{معتبر نیست}$$

$$(2, 14) \rightarrow 4a + 2b + c = 14$$

$$(-3, 4) \rightarrow 9a - 3b + c = 4$$

$$(0, 4) \rightarrow c = 4$$

$$\left. \begin{array}{l} 4a + 2b + c = 14 \\ 9a - 3b + c = 4 \end{array} \right\} \xrightarrow[\text{دستگاه}]{\text{حل}} \begin{array}{l} a = 1 \\ b = 3 \end{array}$$

تفاوتی C معادله تقاطع خط و سهمی رو بکار ببری نه غلطه!
ما داریم معادله خود سهمی رو میسازیم تا بفهمیم خط تقارنش چنده

پس $C = 4$ است!

$$y = x^2 + 3x + 4 \rightarrow \text{مختصات} : x_{ext} = -\frac{3}{2}$$

$$\text{تغیبات} : \frac{f_\alpha}{\Delta \beta^r} + \frac{\beta^0}{\Delta \beta^r} = \frac{f_\alpha}{\Delta \beta^r} + \frac{\beta^r}{\Delta}$$

$$P = \alpha \beta = 2 \rightarrow \beta = \frac{2}{\alpha}$$

$$\frac{f_\alpha}{\Delta (\frac{2}{\alpha})^r} + \frac{\beta^r}{\Delta} = \frac{\alpha^r + \beta^r}{\Delta} = \frac{S^r - 2SP}{\Delta} = 19$$