نام و نام خانوادگی ابیرطاها...طاهری... پاسخنامه تشریحی تکلیف شماره ۲۴ کلاس دهم سیر A

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الف) $y=2x^2-4x+1$ ⟵ مینیمم دار ext $\left|\begin{array}{l}\frac{+4}{4}=1\\ -1\end{array}\right.$

ب) $y=-2x^2+3x-5$ ⟵ ماکسیمم دار ext $\left|\begin{array}{l}\frac{-3}{-4}=\frac{3}{4}\\ \frac{-(9-40)}{-8}=\frac{-31}{8}\end{array}\right.$

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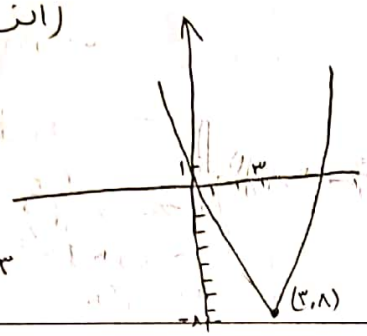
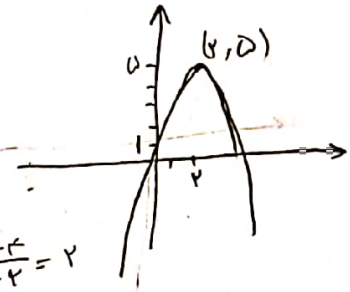
الف)



ext $\left|\begin{array}{l}\frac{6}{2}=3\\ -8\end{array}\right.$

ب)



ext $\left|\begin{array}{l}\frac{-4}{-2}=2\\ 5\end{array}\right.$

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$\left.\begin{array}{l}\alpha+\beta=1\\ \alpha\beta=-2\end{array}\right\}\ x^2-Sx+P=0 \Rightarrow x^2-x-2=0$

$\Rightarrow x=2,\ x=-1 \longrightarrow \Rightarrow -2+k+9-2=0$

$\boxed{k=-3}$

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$\sqrt{\alpha}-\sqrt{\beta}=1 \Rightarrow \alpha+\beta-2\sqrt{\alpha\beta}=1 \Rightarrow 3m-2\sqrt{m}=1$ $\alpha+\beta=3m$

$\sqrt{m}=t$ $3t^2-2t=1 \Rightarrow 3t^2-2t-1=0 \longrightarrow \begin{cases} t=1 \Rightarrow m=1 \\ t=\frac{-1}{3} \times \end{cases}$ $\alpha\beta=m$

$2x^2-x-1=0 \longrightarrow \frac{c}{a}=\boxed{\frac{-1}{2}}$

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$\frac{\sqrt{5}}{|a|} \rightsquigarrow \frac{\sqrt{(m+2)-8m}}{2}=\frac{\sqrt{(m-2)^2}}{1}=\frac{|m-2|}{2}$ $y=x^2-3x+1 \rightsquigarrow \frac{3}{2}$

$y=x^2+x+1 \rightsquigarrow \frac{-1}{2}$

$\frac{|m-2||m|}{4}=\frac{3}{4} \Rightarrow \begin{cases} 2m-m^2=3 \quad \Delta<0 \times \\ m^2-2m-3=0 \Rightarrow m=-1,\ m=3 \end{cases}$

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کمتر مساوی صفر $\longrightarrow$ $a \geq 0$

یک مقدار $a = 2$

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$$\frac{-(9-4a^2)}{4a} = \frac{7}{4} \Rightarrow 8a^2 - 18 = 7a \Rightarrow 8a^2 - 7a - 18 = 0 \begin{cases} a = 2 \\ a = -\frac{9}{8} \ \times \end{cases}$$

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$$\frac{\sqrt{(a+1)^2 - 4a}}{1} = 2 \Rightarrow a^2 + 1 + 2a - 4a = 4 \Rightarrow a^2 - 2a + 1 = 4 \Rightarrow (a-1)^2 = 4 \Rightarrow \begin{cases} a = 3 \ \checkmark \\ a = -1 \ \times \end{cases}$$

$$\frac{\sqrt{(a+1)^2 - 4b}}{111} = 2 \Rightarrow 100 - 4b = 4$$

$$\Rightarrow b = \boxed{24}$$

$x^2 - 4x + 3 = 0 \rightarrow P = 3$

$x^2 - 1 = 0 \Rightarrow x = \pm 1 \ \times$

$x^2 - 10x + 24 = 0 \rightarrow P = 24$

$\boxed{C = 21} \rightarrow 2$

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$$\frac{-a}{-4a} = \frac{1}{4} \longrightarrow \begin{cases} 2b\left(\frac{1}{4}\right)^2 - b\left(\frac{1}{4}\right) - 1 = -1 \\ -a\left(\frac{1}{4}\right)^2 + a\left(\frac{1}{4}\right) + 2 = \frac{a+8}{4} \end{cases} \Rightarrow \frac{a+8}{4} = -1 \Rightarrow a = -12$$

$$\frac{b}{4b} = \frac{1}{4} \longrightarrow \begin{cases} -a\left(\frac{1}{4}\right)^2 + a\left(\frac{1}{4}\right) + 2 = \frac{3a+32}{16} \\ 2b\left(\frac{1}{4}\right)^2 - b\left(\frac{1}{4}\right) - 1 = \frac{-b-8}{8} \end{cases} \Rightarrow \frac{-36+32}{16} = \frac{12b-16}{16} \Rightarrow b = -4$$

$$-4 - (-12) = 8$$

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$$y = 25\alpha x^2 + 4x + \beta \Rightarrow y = x^2 + \frac{4}{25\alpha}x + \frac{\beta}{25\alpha} = x^2 - Sx + P$$

$$\alpha + \beta = \frac{-4}{25\alpha} \longrightarrow \begin{cases} \frac{1}{5} + \beta = \frac{-4}{5} \Rightarrow \beta = -1 \ \times \\ \beta - \frac{1}{5} = \frac{4}{5} \Rightarrow \beta = 1 \ \checkmark \end{cases} \quad \alpha = \pm\frac{1}{5}$$

$$\alpha\beta = \frac{\beta}{25\alpha} \Rightarrow 1 = 25\alpha^2 \Rightarrow \alpha = \pm\frac{1}{5}$$

در نامه اول قرار دارد

$$\text{ext} \left| \begin{array}{l} \frac{-4}{5\alpha} = \frac{4}{10} \\ \frac{-8}{4\alpha} = \frac{-16 + 100\alpha\beta}{100\alpha} = \frac{-64}{-20} = \frac{9}{5} \end{array} \right.$$

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$x^2 - Sx + P = 0$

$\Rightarrow a + b = a^2 + b^2 - 12$

$ab = a + b - 1$

$4 = a + b - 1$

$\Rightarrow a + b = 5$

$$a^2 + b^2 - 12 = a + b \Rightarrow (a+b)^2 - 2ab - 12 = a + b$$

$$\Rightarrow (a+b)^2 - (a+b) = 2ab + 12 \Rightarrow (a+b)\underbrace{(a+b-1)}_{ab} = 2ab + 12$$

$$(a+b)(ab) = 2ab + 12 \Rightarrow (a+b)(ab) - 2ab = 12$$

$$\Rightarrow (ab)\underbrace{(a+b-2)}_{ab-1} = 12 \Rightarrow a^2b^2 - ab = 12 \Rightarrow a^2b^2 - ab - 12 = 0$$

$$\Rightarrow (ab-4)(ab+3) = 0 \begin{cases} ab = 4 \\ ab = -3 \ \times \end{cases}$$

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