نام و نام خانوادگی ....صبا ادهم....   پاسخنامه تشریحی تکلیف شماره ..۱۳.. کلاس ..یازدهم B..

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$x=2=-\frac{b}{2a} \longrightarrow \frac{-1}{2a-2}=2 \longrightarrow 4a-4=-1 \longrightarrow 4a=3 \longrightarrow a=\frac{3}{4}$

$y=-\frac{1}{4}x^2+x+3=0$

$y=x^2-4x-12=0 \quad \begin{cases} \boxed{x_1=6} ✓ \\ x_2=-2 \end{cases}$

چون $x>0$

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چون بین دو ریشه مثبت $\longrightarrow m<0$ *

$\Delta>0 \longrightarrow 25-4m^2>0 \longrightarrow 25>4m^2$

$\frac{25}{4}>m^2 \longrightarrow -\frac{5}{2}<m<\frac{5}{2}$ **

$* \cap ** = \boxed{-\frac{5}{2}<m<0}$

۳

$S=\frac{3-\sqrt{5}}{3}+\frac{3+\sqrt{5}}{3}=\frac{6}{3}=2$

$P=\left(\frac{3-\sqrt{5}}{3}\right)\left(\frac{3+\sqrt{5}}{3}\right)=\frac{9-5}{9}=\frac{4}{9}$

$x^2-Sx+P=x^2-2x+\frac{4}{9}=0 \xrightarrow{\times 9} \boxed{9x^2-18x+4=0}$

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$2x^2-8x+m+2=0 \qquad S=\frac{8}{2}=4 \qquad P=\frac{m+2}{2} \qquad \alpha+\beta=4 \longrightarrow \beta=4-\alpha$

$3\alpha^2+\beta^2=12 \xrightarrow{\beta=4-\alpha} 3\alpha^2+(4-\alpha)^2=12 \longrightarrow 4\alpha^2-8\alpha+4=0 \longrightarrow (2\alpha-2)^2=0$

$\xrightarrow{\beta=4-1=3} \alpha=1 \ , \ \beta=3 \qquad P=\frac{m+2}{2}=3\times1 \longrightarrow 6=m+2 \longrightarrow \boxed{m=4}$

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$c=5 \ , \ S(2,9) \xrightarrow[\text{در معادله صدق}]{(2,9)} 4a+2b+5=9 \longrightarrow 4a+2b=4 \xrightarrow{4a=-b}$

$-\frac{b}{2a}=2 \longrightarrow 4a=-b \xrightarrow{b=4} \boxed{a=-1}$

$\boxed{b=4}$

$f(x)=-x^2+4x+5>0 \xrightarrow{\times -1} x^2-4x-5<0$ ؛ 5 ، -1

$\boxed{x\in(-1,5)}$

	-1		5	
$+$		$-$		$+$

یازدهم B

6

$S = \frac{7}{\alpha} \quad P = \frac{9\beta}{\alpha} \longrightarrow \alpha\beta = \frac{9\beta}{\alpha} \longrightarrow \alpha = \frac{9}{\alpha} \longrightarrow \alpha^2 = 9 \longrightarrow \alpha = 3$ یا -3

$\alpha + \beta = \frac{7}{\alpha} \longrightarrow \beta = \frac{7}{\alpha} - \alpha \xrightarrow{\alpha = 3} \beta = \frac{7}{3} - 3 = -\frac{2}{3}$

$\xrightarrow{\alpha = -3} \beta = -\frac{7}{3} + 3 = \frac{2}{3} \longrightarrow$ غ ق ق چون $b>0$

$\frac{1}{\alpha} + \frac{1}{\beta} = -\frac{1}{3} + \frac{1}{\frac{2}{3}} = -\frac{1}{3} + \frac{3}{2} = \boxed{\frac{7}{6}}$

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$S = -m \quad P = -2m \longrightarrow m = -S \xrightarrow{S = \alpha + \beta} \beta = S - \alpha \quad \alpha^2 - m\beta = \alpha^2 - (-S)(S - \alpha)$

$= \boxed{\alpha^2 + S^2 - S\alpha = 8}$ (1) $\quad m = -S$ و $\alpha\beta = -2m \longrightarrow \alpha\beta = 2S \longrightarrow \alpha(S - \alpha) = 2S$

$\longrightarrow \alpha S - \alpha^2 = 2S \longrightarrow \alpha^2 - \alpha S + 2S = 0$ (2)

(۱) و (۲) را از هم کم می کنیم $(\alpha^2 + S^2 - S\alpha) - (\alpha^2 + \alpha S + 2S) = 8 - 0$

$\longrightarrow S^2 - 2S - 8 = 0 \longrightarrow S = 4 \longrightarrow P = 2S = 8 \longrightarrow x^2 - 4x + 8 = 0 \longrightarrow \Delta < 0$ غ ق ق

$S = -2 \longrightarrow P = -4 \longrightarrow x^2 + 2x - 4 = 0 \longrightarrow \Delta > 0$ ق ق

8

$-\frac{\Delta}{4a} = 8 \longrightarrow \frac{2m^2 + 28m - 16}{4m} = 8 \longrightarrow 32m = 2m^2 + 28m - 16 \longrightarrow 2m^2 - 4m - 16 = 0$

$m^2 - 4m - 32 = 0 \quad m = \frac{8}{2} = 4$ غ ق ق چون باید $m<0$ باشد $\quad m = \frac{-4}{2} = -2$

$m = -2 \longrightarrow -2x^2 + 4x + 6 = 0$

$x^2 + 6x - 12 = 0 \quad \frac{-6}{-2} = 3 \xrightarrow{K > 0} \boxed{K = 3} \quad \frac{2}{-2} = -1$

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$C = 4 \quad S(2, 6) \xrightarrow[\text{در معادله صدق}]{(2,6)} 4a + 2b + 4 = 6 \longrightarrow 4a + 2b = 2 \xrightarrow{4a = -b} \boxed{b = 2}$

$-\frac{b}{2a} = 2 \longrightarrow 4a = -b \xrightarrow{b = 2} \boxed{a = -\frac{1}{2}} \quad f(x) = -\frac{1}{2}x^2 + 2x + 4 = x^2 - x - 2$

$x^2 - x - 2 = 0 \quad x_1 = 2, \ x_2 = -1 \quad \boxed{\frac{1}{2} - 1 = -\frac{1}{2}}$

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$x = 2 \xrightarrow{\text{در معادله صدق}} 4 - 8a - 8 + 3a^2 + 9a + 3 = 0 \longrightarrow 3a^2 - 2a - 1 = 0$

$a^2 - 2a - 3 = 0 \quad a = \frac{3}{3} = 1 \quad a = -\frac{1}{3}$

$S = 4a + 4 = \cancel{x_1} + x_2 \longrightarrow x_2 = 4a + 2$

$a = 1 \longrightarrow \boxed{x_2 = 4(1) + 2 = 6}$

$a = -\frac{1}{3} \longrightarrow x_2 = 4\left(-\frac{1}{3}\right) + 2 = \boxed{\frac{2}{3}}$