نام و نام خانوادگی ....رهادهم........ پاسخنامه تشریحی تکلیف شماره ..۱۹... کلاس .یازدهم B دهکده.........

۱۹,۷۵

۱	$x_1=3x_2$ $x_1x_2=\frac{4}{3} \rightarrow x_2\times 3x_2=\frac{4}{3} \rightarrow x_2^2=\frac{4}{9} \rightarrow x_2=\pm\frac{2}{3}$ $x_1=\pm 2$ $x_1+x_2=\frac{a}{3} \rightarrow \begin{cases} -2-\frac{2}{3}=\frac{a}{3} \rightarrow a=-8 \\ 2+\frac{2}{3}=\frac{a}{3} \rightarrow a=-8 \end{cases}$ $\quad 8-(-8)=16$ ی
۲	$\frac{1}{\sqrt{a}}+\frac{1}{\sqrt{b}}=5 \quad \frac{1}{a}+\frac{1}{b}+\frac{2}{\sqrt{ab}}=25 \quad a+b=\frac{m+14}{36} \quad S=\frac{m+14}{36} \quad P=\frac{1}{36}$ $\rightarrow \frac{1}{a}+\frac{1}{B}=\frac{\frac{m+14}{36}}{\frac{1}{36}}=m+14 \quad \sqrt{ab}=\sqrt{\frac{1}{36}}=\frac{1}{6}$ $\frac{2}{\sqrt{ab}}=12 \quad m+14+12=25 \quad m=-1 \quad \boxed{P=\frac{2}{m}=-2}$ ی
۳	$\left.\begin{matrix}\alpha+B=1\\ \alpha B=-2\end{matrix}\right\} x^2-x-2=0 \rightarrow (x^2-x-2)(ax+b) \quad Ax^3+(B-A)x^2+(-B-2A)x-2B$ $=4x^3+kx^2-9x-2$ ی $A=4$ $B=1$ $B-A=k \quad \boxed{1-4=-3=k}$
۴	$a^2+2a^2+2B^2=12\sqrt{2}+85 \qquad a=\frac{-9-\sqrt{36-4a}}{2} \qquad a^2=\frac{36+36-4a+12\sqrt{36-4a}}{4}$ $\frac{12\sqrt{36-4a}}{4}=12\sqrt{2}$ ی $\boxed{a=1}$
۵	$2P^2-3SP+2S=2P^2 \qquad x^2=t \qquad t^2-7t-5=0 \qquad \begin{cases} t=\frac{7+\sqrt{69}}{2} \\ t=\frac{7-\sqrt{69}}{2} \end{cases} \qquad \sqrt{\frac{7+\sqrt{69}}{2}} \;\&\; -\sqrt{\frac{7+\sqrt{69}}{2}}$ ی $\left(\frac{7+\sqrt{69}}{2}\right)^2=59+7\sqrt{69}$

$2x^2 - ax + b = 0 \qquad x_1 + x_2 = \frac{a}{2}$

$2ax^2 + ax - 4 = 0 \qquad x_1 + x_2 = \frac{a}{2} - 1 = \frac{a}{2a} \qquad \frac{a}{2} = \frac{1}{2} + 1 \qquad \boxed{a = 3} \qquad P = \frac{-4}{2a} = \frac{-2}{a} \qquad \frac{b}{2} = -2 \qquad \boxed{b = -4}$ ۲ ۶

$\boxed{\left[\frac{-4}{3}\right] = -2}$

$ax^2 - ax - b = 0 \xrightarrow{\div a} x^2 - x - \frac{b}{a} = 0 \begin{cases} a & a^2 - a = \frac{b}{a} \\ b & b^2 - b = \frac{b}{a} \end{cases} \qquad |\alpha - \beta| = \sqrt{S^2 - 4P} = \boxed{\sqrt{\frac{6}{5}}}$

$40b + 40\frac{b}{a} + 20a + 20\frac{b}{a} - 20\beta = 17 \to \frac{b}{a} = \frac{-1}{20}$ ۲ ۷

$x^2 - (a+1)x + a = 0 \qquad \begin{matrix} 2n+1 \\ 2n-1 \end{matrix} \qquad S = a + 1 = 4n \qquad a = 4n - 1 \qquad a = 3$

$P = a = 4n^2 - 1 \qquad P = 3 \qquad 4n - 1 = 4n^2 - 1 \begin{cases} n = 0 & \text{غیر قابل قبول} \\ n = 1 \end{cases}$ ۲ ۸

$x^2 - (3a+1)x + b = 0 \qquad \begin{matrix} 2k \\ 2k+2 \end{matrix} \qquad x^2 - 10x + b = 0 \qquad S = 10 = 4k + 2 \qquad k = 2 \qquad \begin{matrix} x_1 = 4 \\ x_2 = 6 \end{matrix} \qquad 4 \times 6 = 24$

$\boxed{24 - 3 = 21}$

$x^2 + x - 1 - m^2 = 0 \qquad S = \alpha + \beta = \frac{-1}{1} = -1 \qquad P = \alpha\beta = \frac{-1-m^2}{1} = -(1+m^2)$

$\alpha^2 + \beta^2 = S^2 - 2P = 1 + 2 + 2m^2 = 3 + 2m^2 \qquad 2m^2 \geq 0 \qquad m^2 \geq 0$

$\to \boxed{3 + 0 = 3}$ ۲ ۹

$\alpha + \beta = -2 \qquad \boxed{x = -1}$

$\alpha^2 + \beta^2 = a \to (\alpha+\beta)^2 = a + 2\alpha b$ ۱/۷۵

$y = a(x^2 + 2x - \frac{1}{2}) \to 1 = a(1 - 2 - \frac{1}{2}) \to a = \frac{-2}{3} \qquad y = \frac{-2}{3} \times (\frac{-3}{2}) = \frac{-2}{3}$ ۱۰