نام و نام خانوادگی .... **پاسخنامه تشریحی تکلیف شماره** ..۲.۲.. **کلاس** ......دهم ریاضی A......

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$\frac{-b}{2a} = -1 \Rightarrow b = 2a \Rightarrow ax^2+2ax+c \Rightarrow \left|{}^{-1}_{9}\right. \Rightarrow a-2a+c=9$

$\left|{}^{3}_{1}\right. \Rightarrow 9a+6a+c=1$

$\Rightarrow a=-\frac{1}{2},\ b=-1,\ c=\frac{17}{2} \Rightarrow \boxed{y=-\frac{1}{2}x^2-x+\frac{17}{2}}$

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$\Delta, P, S > 0 \left\{ \Delta > 0 \Rightarrow m^2-8m-48>0 \right.$ (تعیین علامت: -4، 12: $+\ |\ -\ |\ +$) $\quad m = R-[-4,12]$ *

$S>0 \Rightarrow \frac{-m}{4}>0 \Rightarrow m<0$ *

$P>0 \Rightarrow \frac{m+6}{2}>0 \Rightarrow m>-6$ *

اشتراک * ها $\Rightarrow m=(-6,-4)$

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$\alpha+\beta=\frac{1}{\alpha\beta} \Rightarrow \frac{1-2m}{3}=\frac{3}{2-m} \Rightarrow 2m^2-5m+2=9$

$\Rightarrow 2m^2-5m-7=0$

$\Rightarrow m = \begin{cases} -1 \rightarrow \Delta<0 \Rightarrow \text{غ ق ق} \\ \frac{7}{2} \leftarrow \text{پاسخ} \end{cases}$

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$x^2-x-4=0 \Rightarrow S=1 \quad P=-4 \ \Big|\ S'=x_1^3+x_2^3+\frac{1}{x_1}+\frac{1}{x_2}=x_1^3+x_2^3+\frac{x_1+x_2}{x_1x_2}$

$S'=S^3-3SP+\frac{S}{P}=1+12-\frac{1}{4}=\boxed{\frac{51}{4}}$

$P'=\left(x_2^3+\frac{1}{x_1}\right)\left(x_1^3+\frac{1}{x_2}\right)=(x_1x_2)^3+\frac{1}{x_1x_2}+x_2^2+x_1^2$

$=P^3+\frac{1}{P}+S^2-2P=-64-\frac{1}{4}+1+8=-\frac{221}{4}$

$\Rightarrow x^2-S'x+P' = \Rightarrow \left\{ y = x^2-\frac{51}{4}x-\frac{221}{4} \right\}$ ← پاسخ

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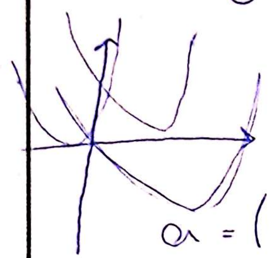
$\sqrt[3]{x}=t \Rightarrow \left(t^2+\frac{1}{t^2}+1\right)\left(t^2-1\right)=2t \Rightarrow t^4-\frac{1}{t^2}=2t \Rightarrow t^6-1=2t^3 \Rightarrow \boxed{t^6-2t^3-1=0}$

$\Rightarrow t^3=\begin{cases}1+\sqrt{2}\\1-\sqrt{2}\end{cases} \Rightarrow t^3=(\sqrt[3]{x})^3=x \Rightarrow x=\begin{cases}1+\sqrt{2}\\1-\sqrt{2}\end{cases}$

$x_1+x_2=1+\sqrt{2}+1-\sqrt{2}=\boxed{2}$

$x_1=\alpha \quad x_2=3\alpha \Rightarrow P=\frac{c}{a}=\frac{4}{3}=3\alpha^2 \Rightarrow \alpha^2=\frac{4}{9} \Rightarrow \alpha=\pm\frac{2}{3}$ $S=\frac{-b}{a}=\frac{a}{3}=4\alpha \Rightarrow a=12\alpha \Rightarrow a=\begin{cases}+8\\-8\end{cases}$ $8-(-8)=16$	۶
$a=0 \Rightarrow y=3x$ غ ق ق $\Rightarrow a\neq 0$ $\quad a>0$  $S\geq 0 \Rightarrow \frac{-3-2a}{a}\geq 0 \Rightarrow \frac{-3}{2} \quad 0: \; - \mid + \mid - \Rightarrow -\frac{3}{2}\leq a<0$ $a=(0,+\infty)\cap\left[-\frac{3}{2},0\right]=\emptyset$ هیچ مقدار	۷
$\frac{-b}{2a}=\frac{2}{-2}=\frac{-a}{2} \Rightarrow a=2$ $\quad \begin{cases}-x^2-2x+b=1\\x^2+2x-2=1\end{cases}$ در عرض ۱ مشترک‌اند $\Rightarrow$ $b-2=2 \Rightarrow b=4$ $\Rightarrow ab=2\times 4=8$	۸
$2ax^2+ax-6=0 \quad \alpha+\beta=\frac{-a}{2a}=-\frac{1}{2}$ $\quad \begin{cases}2x^2-ax+b=0\\(\alpha+\frac{1}{2})+(\beta+\frac{1}{2})=\alpha+\beta+1=-\frac{1}{2}+1=\frac{1}{2}=\frac{a}{2}\end{cases}$ $\quad a=1$ $\frac{c}{a}=\frac{-6}{2}=-3=\alpha\beta$ $(\alpha+\frac{1}{2})(\beta+\frac{1}{2})=\alpha\beta+\frac{1}{4}+\frac{\alpha+\beta}{2}$ $\quad a=1$ $-3+\frac{1}{4}-\frac{1}{4}=-3 \Rightarrow -3=\frac{b}{2} \Rightarrow b=-6$ $\quad \left[\frac{ab}{4}\right]=\left[\frac{-6}{4}\right]=-2$	۹
$x^2+2x-3m=0 \Rightarrow x=\begin{cases}w\\y\end{cases}$ $\quad w+y=-2$ ☆ $x^2+6x+m=0 \Rightarrow x=\begin{cases}z\\y\end{cases}$ $\quad z+y=-6$ ☆ $\Rightarrow \lvert (w+y)-(z+y)\rvert=\lvert w-z\rvert$ $\Rightarrow \lvert -2-(-6)\rvert=4$	۱۰