۲۰

نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ۲۳ کلاس .....

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$\frac{-b}{2a} = -1 \Rightarrow b = 2a$

$a - b + c = 9 \Rightarrow a - 2a + c = c - a = 9$ *

$9a + 3b + c = 1 \Rightarrow 9a + 9a + c = 18a + c = 1$ *

** $\rightarrow a = \frac{-1}{2}$, $b = 2(\frac{-1}{2}) = -1$, $c = \frac{17}{2}$

$y = -\frac{1}{2}x^2 - 1x + \frac{17}{2}$

۲

$\frac{-b}{2a} = \frac{-m}{4} > 0 \Rightarrow m < 0$ * $\quad \frac{c}{a} = \frac{m+9}{2} > 0 \quad m > -9$

$\Delta = m^2 - 8m - 48 > 0 \Rightarrow (m-12)(m+4) > 0$

	-4		12	
	$+$	0	$-$	0 $+$

$(-\infty, -4) \cup (12, +\infty)$ *

اشتراک *** $\Rightarrow -9 < m < -4$

۳

$\frac{c}{a} \rightarrow \frac{a}{c} = \frac{-b}{a} \Rightarrow a^2 = -bc \Rightarrow 9 = -(2m-1)(2-m)$

$9 = -(4m - 2m^2 - 2 + m)$

$9 = -(-2m^2 + 5m - 2)$

$9 = 2m^2 + 5m + 2$

$2m^2 + 5m - 7 = 0 \rightarrow \frac{7}{2}$ * , -1 ×

$(2m-7)(m+1) = 0$

$(2m-1)^2 - 4(2)(2-m) > 0$

$4m^2 + 8m - 24 > 0$

$m = \frac{-8 \pm \sqrt{64 - 4(4)(-24)}}{8}$

	$\frac{-1-\sqrt{97}}{2}$		$\frac{-1+\sqrt{97}}{2}$	
	$+$	0	$-$	0 $+$

$(-\infty, \frac{-1-\sqrt{97}}{2}) \cup (\frac{-1+\sqrt{97}}{2}, +\infty)$ *

** $\rightarrow m = \frac{7}{2}$

۴

$x = x^2 - 4$

$x^2 - x - 4 = 0$

$\hookrightarrow S = +1 \quad P = -4$

$x_1^3 + x_2^3 + \frac{1}{x_1} + \frac{1}{x_2} = (x_1 + x_2)^3 - 3(-4)(x_1 + x_2) + \frac{x_1 + x_2}{x_1 x_2} = \frac{85}{4}$

$(x_2^2 + \frac{1}{x_1})(x_1^2 + \frac{1}{x_2}) = (x_1 x_2) + x_1^2 + x_2^2 + \frac{1}{x_1 x_2} = -\frac{221}{4}$

$\Rightarrow x^2 - \frac{85}{4}x - \frac{221}{4} = y$

۵

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

$\frac{\sqrt[3]{x^4} - 1}{\sqrt[3]{x^2}} = 2\sqrt[3]{x} \Rightarrow x^2 - 1 = 2x \Rightarrow x^2 - 2x - 1 = 0 \Rightarrow S = 2$

۶

$\alpha = 3\beta$

$P = \frac{8}{3}$

$3\beta^2 = \frac{8}{3}$

$\beta \to \frac{2}{3}$, $-\frac{2}{3}$ $\Rightarrow \alpha \to 2$, -2

$\frac{8}{3} = \frac{a}{3} \Rightarrow a = 8$

$-\frac{8}{3} = \frac{a}{3} \Rightarrow a = -8$

$8 - (-8) = 16$

(۲)

۷

$a > 0$ ~~✗~~

$\Delta \geq 0 \Rightarrow 9 + 8a^2 + 12a \geq 0 \Rightarrow a \in \mathbb{R}$ ~~✗~~

$S \geq 0 \Rightarrow \frac{-3-2a}{a} \geq 0 \Rightarrow \frac{-3}{2} > a$ ~~✗~~ $\Rightarrow$

	$-\frac{3}{2}$		0	
	$-$	$+$	$\not\exists$	$-$

$\left[-\frac{3}{2}, 0\right)$

$P = 0$ ✓

~~✗ ✗ ✗~~ $\longrightarrow$ اشتراک $\emptyset$

(۲)

۸

$\frac{-b}{2a} = \frac{2}{-2} = \frac{-a}{2} \Rightarrow a = 2$

$1 = -2^2 - 2(2) + b$

$1 = 2^2 + 2(2) - 2$

$\Big\} 2 = -2 + b \Rightarrow b = 4$

$ab = 8$

(۲)

۹

$2ax^2 + ax - 4 = 0$

$S = \alpha + \beta = -\frac{1}{2}$ $\quad P = -3$

$2x^2 - ax + b = 0$

$S = \alpha + \frac{1}{2} + \beta + \frac{1}{2} = \frac{-1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{-(-a)}{2} \Rightarrow a = 1$

$P = (\alpha + \frac{1}{2})(\beta + \frac{1}{2}) = \frac{b}{2} \Rightarrow b = -4$

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

(۲)

۱۰

$x^2 + 4x + m = 0$

$S = -4$

$\alpha + \beta = -4$

$\alpha = -4 - \beta$

$x^2 + 2x - 3m = 0$

$S = -2$

$\alpha + \gamma = -2$

$\alpha = -2 - \gamma$

$-4 - \beta = -2 - \gamma \Rightarrow \gamma - \beta = 4$

(۲)