نام و نام خانوادگی ....بهراد عباسی.......... پاسخنامه تشریحی تکلیف شماره ....۱۳.... کلاس ....یازدهم B........

۱	$\frac{-b}{2a} = 2 \to \frac{-b}{a} = 4 \quad \frac{1}{1-a} = 4 \to \frac{3}{4} \to -\frac{1}{4}x^2 + x + 3$ $\frac{-1 + \sqrt{1+3}}{-\frac{2}{4}} = -\frac{3\times 2}{-1} = 6$
۲	$x_1, x_2 \to \Delta > 0 \to 25 - 4m^2 > 0 \to -\frac{5}{2} < m < \frac{5}{2}$ (I) $- \quad + \quad - \to a < 0 \to m < 0$ (II) $I, II \Rightarrow -\frac{5}{2} < m < 0$
۳	$a = 1$ ضرایب صحیح: $\alpha + \beta = -b = \frac{6}{3} = 2$ $\alpha\beta = c = \frac{9-5}{9} = \frac{4}{9} \to m = 9$ $m(x^2 - sx + p)$ $\Rightarrow f(x) = 9x^2 - 18x + 4$
۴	$2x^2 - 8x + \underbrace{m+2}_{t} = 0$ $p = \frac{t}{2}$ $s = 4$ $3\alpha^2 + \beta^2 = s^2 - 2p + 2\alpha^2 \quad \sqrt{16 - 2t} \to t < 8$ $\Rightarrow 16 - t + 2\left(\frac{4 - \sqrt{64 - 8t}}{4}\right)$ $\Rightarrow 16 - t + 4 - \sqrt{16 - 2t} = 12 \to 16 - 2t = t^2 - 16t + 64 \to t^2 - 14t + 48 = 0$ 8 ✗, 6 $m + 2 = 6 \to m = 4$
۵	(a, β)? $\quad a(x-2)^2 + 9$ $x = 0 \to 4a + 9 = 5 \to a = -1 \to (x-2)^2 = 9$ $\to x = -1, 5 \quad (-1, 5)$

۶

$\alpha\beta = \frac{9\beta}{\alpha} \to \alpha = 3$

$-1\alpha + \beta = \frac{7}{\alpha} \to \beta = \frac{1}{3}$ ($\alpha = -3$)

$\left.\begin{array}{l}\alpha\beta = \frac{9\beta}{\alpha} \to \alpha = 3 \\ -1\alpha + \beta = \frac{7}{\alpha} \to \beta = \frac{1}{3}\end{array}\right\} \frac{1}{\alpha} + \frac{1}{\beta} = -\frac{1}{3} + \frac{3}{1} = \frac{7}{9}$

۲

$m = ?$

$\alpha^2 - m\beta = 1$

$\to \alpha^2 + \beta^2 - 2m = 1$

$\alpha^2 + \beta^2 = (\alpha+\beta)^2 - 2\alpha\beta$

$= m^2 + 4m$

$\Delta > 0 \to m^2 + 8m > 0$

$(-\infty, -8) \cup (0, +\infty)$

$\left.\begin{array}{l}\alpha^2 + \beta^2 - 2m = 1 \\ m^2 + 4m\end{array}\right\} m^2 + 2m - 1 = 0$

-4 ✗ ; 2 ✓ $\to -m = -2 = 5$

۱

$y_S = 1 = \frac{-\Delta}{4a} = \frac{-(m^2 + 8m - 4)}{4m} = 1 \Rightarrow \frac{m}{2} + 2 - \frac{4}{m} = 1$

$m \neq 0 \Rightarrow m^2 - 2m - 8 = 0$

-2 ✓ ; 4 ✗

$m < 0 \Rightarrow m = -2 \to -2x^2 + 4x + 6 = 0$

$+2$ ✓ ; -1

۹

$\frac{1}{\alpha} + \frac{1}{\beta}$

$\to \frac{S}{P} = \frac{4}{-8} = -\frac{1}{2}$

$a(x-2)^2 + 9 \xrightarrow[y=0]{x=0} a = -\frac{1}{2} \to -\frac{x^2}{2} + 2x + 4 = 0$

۱۰

$4 - 8a - 8 + 2a^2 + 9a + 2 = 0 \Rightarrow 2a^2 - 2a - 1 = 0$

$-\frac{1}{2}$ ✓ ; 1

$\to \Delta > 0$ ✓

$\to \Delta > 0$ ✓

$2x^2 - 8x + 8 = 0$

2 ; 2 ✓

$x^2 - 8x + 16 = 0$

4 ; 4 ✓