

نام و نام خانوادگی: (معمولاً) (معمولاً) (معمولاً)
 باسختنامه تشریحی تکلیف شماره کلاس:
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$$-\frac{b}{a} = 2 \quad -b + 2a = 2 \quad -1 \quad 2 = \frac{2}{1} \quad 2 = -\frac{1}{2}x^2 + x + 2 \quad x - 2x - 1 = 0$$

$$(x-4)(x+2) = 0 \quad \underline{x = 4} \quad \checkmark$$

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$$\begin{aligned} a < 0 \rightarrow m < 0 \\ \Delta > 0 \quad r\omega - 4m^2 > 0 \quad m^2 < \frac{r\omega}{4} \quad m < \sqrt{r\omega} \quad m > -\sqrt{r\omega} \end{aligned} \quad \left\{ \begin{array}{l} \text{اشتراک} \\ -\sqrt{r\omega} < m < \sqrt{r\omega} \end{array} \right. \quad \checkmark$$

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$$-\frac{b+\sqrt{\Delta}}{2a} = \frac{r+\sqrt{\Delta}}{2} \quad \sqrt{\Delta} = \sqrt{0} \quad \Delta = 0 = b^2 - 4ac$$

$$\begin{aligned} -b &= r \quad b = -r \\ 2a &= 2 \quad a = 1, \omega \end{aligned} \quad \left\{ \begin{array}{l} \omega = 9 - 4c \quad 4c = 8 \\ c = \frac{2}{1} \end{array} \right. \quad \checkmark$$

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$$\text{ضرایب} \quad a = 9 \quad b = -12 \quad c = 4 \quad \Rightarrow y = 9x^2 - 12x + 4 \quad \checkmark$$

$$x^2 - tx + \frac{m+c}{2} = 0 \quad x = \frac{t \pm \sqrt{t^2 - 4 \cdot \frac{m+c}{2}}}{2} = \frac{t \pm \sqrt{t^2 - 2(m+c)}}{2}$$

$$\alpha = \frac{t - \sqrt{t^2 - 2(m+c)}}{2} \quad \beta = \frac{t + \sqrt{t^2 - 2(m+c)}}{2}$$

$$4\left(\frac{t - \sqrt{t^2 - 2(m+c)}}{2}\right)^2 - \left(\frac{t - \sqrt{t^2 - 2(m+c)}}{2}\right)^2 = 4(t + b^2 - tb) + (t + b^2 + tb) = 12$$

$$tb^2 - tb + t = 0 \quad b^2 - tb + 1 = 0 \quad (b-1)^2 = 0 \quad b = 1 = \sqrt{t^2 - 2(m+c)}$$

$$1 = t - c \quad c = 2 = \frac{m+c}{2} \Rightarrow m = 2 \quad \checkmark$$

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$$c = \omega \quad -\frac{b}{a} = r \quad b = -ra \quad \Rightarrow y = ax^2 + bx + c \xrightarrow{x=r} 4 = ta - 12a + \omega$$

$$4 = -ta \quad a = -1 \quad y = -x^2 + tx + \omega$$

$$-x^2 + tx + \omega > 0 \quad -x^2 + tx - \omega < 0 \quad (x-\omega)(x+1) = 0 \quad \frac{-1}{2} < \frac{\omega}{2} < \frac{1}{2} \quad \underline{-1 < \omega < 1} \quad \checkmark$$

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$x = \beta \rightarrow x\beta^r - v\beta + a\beta = 0 \quad \beta(a\beta + r) = 0 \quad \xrightarrow{\text{Cm}} \beta \rightarrow x\beta = -r = p = -\frac{v}{\alpha}$ $-r\alpha = v \quad \alpha = -\frac{v}{r}, \omega \quad \beta = \frac{-r}{-\frac{v}{r}} = \frac{r}{v} \quad \frac{1}{\frac{v}{r}} = \frac{r}{v} = \frac{r}{v} + \frac{v}{r} = \frac{r^2 + v^2}{rv} = \frac{a}{r\alpha}$ $p = \alpha\beta = \frac{92}{\alpha} \rightarrow \alpha = \frac{92}{p}$ $S = \alpha + \beta = \frac{v}{\alpha} \rightarrow \begin{cases} \alpha = r \rightarrow \beta = -\frac{r}{v} \times \\ \alpha = -r \rightarrow \beta = \frac{r}{v} \checkmark \end{cases} \quad \text{طابق گفته صورت سال}$ $\frac{1}{\alpha} + \frac{1}{\beta} = -\frac{1}{r} + \frac{r}{v} = \frac{v}{v}$	0 6
$x = \alpha \rightarrow x^r = -m\alpha + rm \Rightarrow \alpha^r - m\beta = \Lambda = -m\alpha - m\beta + rm = \Lambda$ $m\alpha + m\beta - rm + \Lambda = 0 \Rightarrow m(\alpha + \beta) - rm + \Lambda = 0 \quad \xrightarrow{S = -m} \quad -m^r - rm + \Lambda = 0$ $m^r + rm - \Lambda = 0 \quad (m + r)(m - r) = 0 \quad m = -r, m = r \Rightarrow S = -m = -r$ $\Delta = 14 - 4 \times (1) = -14 < 0$	2 Y
$a < 0 \Rightarrow m < 0 \quad x_{max} = -\frac{b}{r\alpha} = -\frac{t}{rm} = -\frac{r}{m} \quad y_{max} = m\left(\frac{t}{m}\right) = \frac{n}{m} + \frac{m}{r} + v = \Lambda$ $\frac{t}{m} - \frac{r}{m} + \frac{m}{r} - 1 = 0 \quad \frac{-n + m^r - rm}{rm} = 0 \quad (m - r)(m + r) = 0 \quad m = -r$ $-r\alpha^r + t\alpha + 4 = 0 \quad \alpha^r - r\alpha - 4 = 0 \quad (\alpha - 4)(\alpha + 1) = 0 \quad \alpha = 4 \checkmark$	2 Λ
$a < 0 \quad c = t \quad -\frac{b}{r\alpha} = r \quad b = -t\alpha \Rightarrow y = ax^r - t\alpha x + t \quad \frac{x^r}{y} = 4 \quad 4 = t\alpha - \Lambda\alpha + t$ $t\alpha = -r \quad \alpha = -\frac{1}{r} \quad b = r \Rightarrow y = -\frac{1}{r}x^r + rx + t \quad \frac{1}{\alpha} + \frac{1}{\beta} = \frac{5}{p} \quad S = -\frac{r}{-\frac{1}{r}} = t$ $p = \frac{t}{-\frac{1}{r}} = -n \quad \frac{1}{\alpha} + \frac{1}{\beta} = \frac{t}{-n} = -\frac{1}{r} \checkmark$	4 9
$x = r \rightarrow t - n\alpha - \Lambda + v\alpha^r + 4\alpha - r\alpha^r - r\alpha - 1 = 0 \quad \xrightarrow{\text{Cm}} \alpha^r - r\alpha - r = 0$ $(a - r)(a + 1) = 0 \quad a = \frac{r}{r} = 1 \quad a = -\frac{1}{r}$ $\xrightarrow{a=1} x^r - \Lambda x + (r + 4 + r) = x^r - \Lambda x + r = 0 \quad (x - 4)(x - r) = 0 \quad \boxed{x = 4} \checkmark$ $\xrightarrow{a=-\frac{1}{r}} x^r - \left(-\frac{t}{r} + \frac{1}{r}\right) + \left(\frac{r}{r} + \frac{r}{r} - 4 + r\left(\frac{1}{r}\right) + r\right) = x^r - \frac{\Lambda}{r}x + \frac{t}{r} = 0$ $\xrightarrow{r\alpha^r - \Lambda x + t = 0} \xrightarrow{\text{Cm}} x^r - \Lambda x + r = 0 \quad (x - 4)(x - r) = 0 \quad x = \frac{4}{r} + r \quad \boxed{x = \frac{r}{r}} \checkmark$	2 10