

$$y = -x^2 + bx + 12 \quad \frac{-\Delta}{4a} = 7$$

$$\frac{-(b^2 - 4ac)}{4a} = 7 \Rightarrow \frac{-(b^2 + 12)}{4} = 7$$

$$b^2 + 12 = -28 \rightarrow b^2 = -40 \rightarrow b = \pm \sqrt{-40}$$

الف) $f(x) = x^2 + 2x + 3$
 $x^2 = t$
 $t^2 + 2t + 3 = 0$ صفرها تابع وجود ندارد!
 $\Delta < 0 \rightarrow$ شماره ندارد
 $\epsilon - 12 < 0$

ب) $f(x) = (x-2)^2 - 2(x-2) - 15$
 $\epsilon - x^2 = t$
 $t^2 - 2t - 15 = 0 \Rightarrow (t-5)(t+3) = 0$
 $t = 5$ یا $t = -3$
 $\epsilon - x^2 = 5 \rightarrow -1 = x^2$ ق ق ع
 $\epsilon - x^2 = -3 \rightarrow 7 = x^2 \Rightarrow x = \pm \sqrt{7}$

$$\epsilon x^2 - 14x + m = 0 \quad \alpha - \beta = 2$$

$$\frac{\sqrt{\Delta}}{2a} = 2 \Rightarrow \frac{\sqrt{196 - 4\epsilon m}}{2\epsilon} = 2 \Rightarrow \sqrt{196 - 4\epsilon m} = 4\epsilon$$

$$196 - 4\epsilon m = 16\epsilon \Rightarrow 14^2 = 4\epsilon m \Rightarrow m = 14$$

$$\epsilon x^2 - 14x + 14 = 0$$

$$\alpha, \beta = \frac{14 \pm \sqrt{196 - 4\epsilon \cdot 14}}{2\epsilon} \Rightarrow \alpha_1 = \frac{14}{2\epsilon} = 7$$

$$\alpha_2 = \frac{14}{2\epsilon} = 7$$

$$3x^2 - 4x + m - 1 = 0 \quad \alpha - \beta = 2$$

$$-\frac{b}{a} = \alpha + \beta = \frac{4}{3} = 2$$

$$\begin{cases} \alpha + \beta = 2 \\ \alpha - \beta = 2 \end{cases} \Rightarrow \frac{c}{a} = \frac{-m+1}{3} = \alpha\beta = 0$$

$$\frac{3}{3} = 1$$

$$\alpha = 2, \beta = 0$$

$$m = 1$$

$$-m x^2 + \epsilon x + m^2 - 2 = 0$$

$$\alpha\beta = 1 \quad \frac{c}{a} = \alpha\beta, -\frac{b}{a} = \alpha + \beta$$

$$\frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 - m + 2 = 0 \Rightarrow m = 1$$

$$b^2 - 4ac = 14 - 14 = 0$$

$$m = 1 \Rightarrow b^2 - 4ac = 14 > 0 \checkmark$$

$$\frac{-1 \pm \sqrt{14}}{2} \Rightarrow m_1 = -1, m_2 = 1$$

$$x^2 - mx + p = 0 \quad \alpha/\beta = r$$

$$\alpha + \beta = m \quad \alpha\beta = 1^u \rightarrow \alpha = \frac{1^u}{\beta}$$

$$K_2 \beta^Y \chi \frac{\mu}{\beta} \Rightarrow K_2 \mu \beta \Rightarrow \beta \approx \frac{c}{\mu}$$

$$d = \frac{r}{\frac{1}{k}} = \frac{q}{k} \quad m = \frac{q}{k} + \frac{k}{r} = \frac{4V+14}{14} \approx \frac{44}{14} \approx m$$

$$x^4 - \xi x + m = 0 \quad m \geq 5 \quad \alpha = \psi/\beta$$

$$\alpha + \beta = \epsilon \quad \alpha, \beta \in m$$

$$\gamma\beta + \beta = \epsilon \rightarrow \beta \geq 1 \rightarrow \epsilon - 1 \geq \alpha \geq \gamma$$

$$\alpha, \beta \vdash m \Rightarrow \textcircled{w}$$

$$x'' - Vx + \dot{V} = 0 \quad x'' + \frac{\Lambda}{x^\mu} = 5$$

$$\alpha\beta \approx \alpha + \beta \approx V$$

$$\frac{\beta}{\gamma} = \frac{1}{\alpha} \Rightarrow \frac{\beta^\gamma}{\gamma} \Rightarrow \beta^\gamma = \frac{(\alpha\beta)^\gamma}{\alpha^\gamma} = \frac{1}{\alpha^\gamma}$$

$$\beta^{\mu} + \alpha^{\mu} = \frac{1}{\alpha^{\mu}} + \alpha^{\mu} \xrightarrow[\text{مربع}]{\text{عكس}} \alpha^{\mu} + \beta^{\mu} = \sqrt{\mu} - \sqrt{\mu} \sqrt{\mu} \sqrt{\mu} = \sqrt{\mu}$$

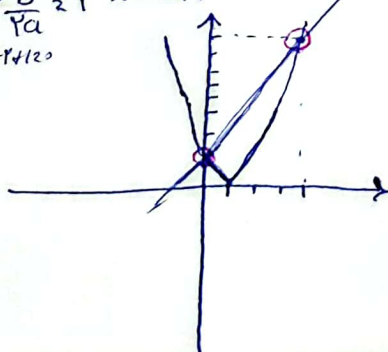
$$h(t) = -\frac{1}{2}gt^2 + \omega_0 t \quad h_{\max} = ? \quad t = ?$$

$\rightarrow \text{استاذ} + \text{استاذ} = \text{استاذ} \text{ استاذ}$
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$$\frac{2+0}{2} = 1$$

$$-j\omega(Y/\omega)^Y + \omega_0(Y/\omega) \approx QY/\omega = h\max$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



$$\Rightarrow x^2 - 5x + 2x(x-5)$$

$$\rightarrow) x^2 + x = 1x + 1$$

$$\begin{aligned} x+y > 0 &\rightarrow x > -y \\ x+y < 0 &\rightarrow x < -y \end{aligned}$$

$x_2 - y$

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