

حسن سعید

$$x^2 - \omega x + r = 0 \quad \Delta = 4\omega - 4(r) = 4\omega - 4 = 4$$

$$\alpha, \beta = \frac{\omega \pm \sqrt{1}}{2} \quad \alpha + \beta = \omega, \alpha \cdot \beta = r$$

$$\alpha^2 + \beta^2 = (\alpha + \beta)^2 - 2\alpha\beta = 4\omega - 4 = 4$$

$$\frac{r\alpha + \beta\omega}{\omega\beta^2} \rightarrow \alpha = \frac{\omega + \sqrt{1}}{2} \Rightarrow \xi\alpha = 2(\omega + \sqrt{1})$$

$$\beta = \frac{\omega - \sqrt{1}}{2} \Rightarrow \beta^2 = \frac{(\omega - \sqrt{1})^2}{4} \Rightarrow \omega\beta^2 = \frac{\omega(\omega - \sqrt{1})^2}{4}$$

$$\frac{r\alpha\beta^{-2}}{\omega\beta^2} + \frac{\beta^2}{\omega}$$

$$\downarrow$$

$$\frac{r\alpha}{\omega\beta^2} = \frac{2(\omega + \sqrt{1})}{\omega(\omega - \sqrt{1})^2} = \frac{2(\omega + \sqrt{1})}{\omega(\omega - \sqrt{1})^2} \times \frac{(\omega + \sqrt{1})^2}{(\omega + \sqrt{1})^2} \Rightarrow$$

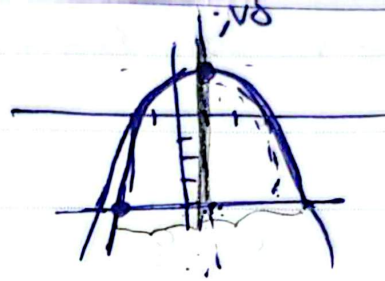
$$\frac{2(\omega + \sqrt{1})^3}{\omega \times 4} = \frac{(\omega + \sqrt{1})^3}{2\omega} = \frac{\xi\alpha}{\omega\beta^2}, \quad \frac{\beta^2}{\omega} = \frac{(\omega - \sqrt{1})^2}{4 \times \omega}$$

$$\frac{r\alpha}{\omega\beta^2} + \frac{\beta^2}{\omega} = \frac{(\omega + \sqrt{1})^3}{2\omega} + \frac{(\omega - \sqrt{1})^2}{4\omega} \Rightarrow \frac{(\omega + \sqrt{1})^3 + (\omega - \sqrt{1})^2}{2\omega} = \frac{(r\alpha) + (\beta^2)}{2\omega}$$

$$a^2 + b^2 = (a + b)^2 - 2ab(a + b) = \frac{4\alpha^2 + 4\beta^2}{4} = \frac{\alpha^2 + \beta^2}{1} = \frac{(\alpha + \beta)^2 - 2\alpha\beta(\alpha + \beta)}{4}$$

$$\Rightarrow \frac{4\omega - 4}{4} = \frac{4\omega - 4}{4} = \omega = \boxed{1}$$

$$x_1 + x_2 = \frac{-b}{a}$$

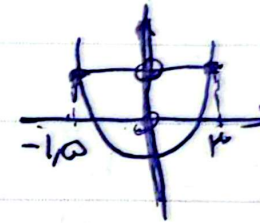


$$S = \left[ \frac{-b}{2a} = \frac{100}{1} \right]$$

$$\frac{-b}{2a} = \frac{100}{1}$$

$$\boxed{\frac{-b}{a} = \frac{100}{1}}$$

$$100 = \frac{100}{1} = \frac{r + (-1,0)}{r}$$



$$-1,0 + r, 100 =$$

$$r - r, 100 = 100$$

$$x_1 - x_2 = \frac{\sqrt{\Delta}}{|a|} = \frac{k}{r} k$$

$$\boxed{a=1}$$

$$b = rk$$

$$c = a$$

$$\sqrt{\epsilon k^2 - 100} = \frac{\epsilon}{r} k$$

$$\epsilon k^2 - 100 = \frac{14}{9} k^2$$

$$\left(\epsilon - \frac{14}{9}\right) k^2 - 100 = 0$$

$$\Delta = \epsilon k^2 - 100$$

$$= \epsilon k^2 - 100$$

$$\frac{100}{9} k^2 = 100 \Rightarrow \frac{k^2}{9} = 1 \Rightarrow k^2 = 9$$

$$k = \pm 3$$

$$\boxed{\frac{k^2}{9} = 1}$$

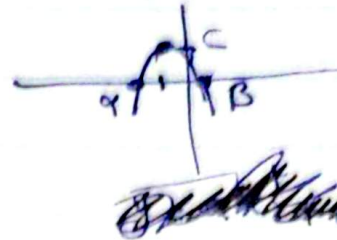
$$A = (r, y) \quad B(-a, y)$$

$$S(-1, 1)$$

$$\alpha^r + \beta^r = \omega$$

$$(\alpha + \beta)^r - r\alpha\beta = \omega$$

$$\boxed{s^r - rp = \omega}$$



$$y = x^r - sx + p$$

$$y = 9 -$$

$$\text{from } x \left\{ \frac{-b}{ra} = -1 \Rightarrow \frac{b}{ra} = 1 \quad \boxed{b = ra} \right.$$

$$\text{from } y \left\{ \frac{-\Delta}{ra} = 1 \Rightarrow \Delta = -ra \rightarrow \begin{aligned} b^r - \sum a^r c &= -\sum a^r \\ \sum a^r - \sum a^r c &= -\sum a^r \\ \sum a^r (a - c) &= -\sum a^r \end{aligned} \right.$$

$$y = ax^r + bx + c$$

$$a - c = -1$$

$$\boxed{a + 1 = c} \quad (\star)$$

$$s^r - rp = \frac{b^r}{a^r} - \frac{rc}{a} = \omega$$

$$\frac{b^r - rca}{a^r} = \omega$$

$$\frac{\sum a^r - rac}{a^r} = \omega$$

$$\frac{ra(ra - c)}{a^r} = \omega$$

$$r(ra - c) = \omega a$$

$$ra - rc = \omega a$$

$$\boxed{-rc = a} \quad (\star)$$

$$-rc + 1 = c$$

$$1 = rc$$

$$\boxed{c = \frac{1}{r}} \quad (\star, \star)$$

حسن سہیل

— 5

$$-\sqrt{r_0 + \epsilon_m} < \epsilon$$

$$\sqrt{4\omega + \epsilon_m} > -\epsilon > 0.$$

$$p_A + \epsilon_m > 0$$

$$t_m > -r\Delta$$

$$m = -3, -2, -1, 0$$

$\Rightarrow$

— १

18

$$\left( \frac{r}{K}, \frac{-r(\xi + 4K)}{\xi K} \right)$$

ردی خط میله دارد  $\left( \frac{2}{K}, \frac{-4-4K}{K} \right)$

27

*Jahan Nama*  
CREATIVE NOTEBOOK

$$x^r = t \rightarrow t^r - \sqrt{t} - \Delta = 0 \quad \Delta = 49 - \xi(-\Delta) = 49 \quad -\Lambda$$

$$t = \frac{\sqrt{t} \pm \sqrt{49}}{r} \Rightarrow t_1 = \frac{\sqrt{t} + \sqrt{49}}{r} \quad \tilde{O} \tilde{O} \quad t_r = \frac{\sqrt{t} - \sqrt{49}}{r} \quad \tilde{O} \tilde{O} \tilde{\xi}$$

$$x^r = \frac{\sqrt{t} + \sqrt{49}}{r} \rightarrow x_{1,r} = \pm \sqrt{\frac{\sqrt{t} \pm \sqrt{49}}{r}} \quad , z = 0 \quad , p = \frac{\sqrt{t} + \sqrt{49}}{r}$$

$$r p^r = r \left( \frac{49 + 14\sqrt{49} + 49}{r} \right) = \frac{118 + 14\sqrt{49}}{r} \Rightarrow \boxed{49 + \sqrt{49}}$$

$$-\frac{\Delta}{\xi a} = r \rightarrow \Delta = -\Lambda a \Rightarrow 12^r - \xi m(\Delta m - 1) = -\Lambda m \quad -9$$

$$\xrightarrow{\div \xi} 34 - \Delta m^r + m = -r m \rightarrow \Delta m^r - r m - 34 = 0 \rightarrow m = 3 \quad m > 0$$

$$\text{محور مقادير : } x = \frac{12}{rm} = \frac{12}{4} = \boxed{3}$$

حسب

$$\begin{cases}
 y = mx^2 + mx + 1 \\
 y = -m - x
 \end{cases}
 \left. \begin{array}{l}
 \text{در هیچ نقطه‌ای} \\
 \Rightarrow \Delta < 0 \\
 \text{بر خوردنی نیست}
 \end{array} \right\}
 \begin{array}{l}
 -1. \\
 -mx^2 + mx + 1 + x + m = 0
 \end{array}
 \quad 24$$

$$a = -m, \quad b = m + 1, \quad c = m + 1, \quad \Delta = (m + 1)^2 - 4(-m)(m + 1) < 0 \quad 27$$

$$(m + 1)(m + 1 + 4m) < 0 \Rightarrow (m + 1)(5m + 1) < 0$$

$-1 < m < -\frac{1}{5}$

*Jahan Nama*  
CREATIVE NOTEBOOK

|   |    |      |   |
|---|----|------|---|
|   | -1 | -1/5 |   |
| Δ | +  | -    | + |

↔  
ح.

NOTEBOOK

$$x^r + r(a+1)x + ra - 1 = 0$$

SAT ☐

SUN ☐

MON ☐

TUE ☐

WED ☐

THU ☐

FRI ☐

$$\alpha + \beta = -r(a+1)$$

$$\alpha \cdot \beta = ra - 1$$

$$a^r = ra - 1$$

$$a^r - ra + 1 = 0$$

$$(a-1)^r = 0$$

$$\boxed{a=1}$$

$\alpha, a, \beta$

*is*

~~is~~

$$\frac{a}{\alpha} = \frac{\beta}{a}$$

$$\boxed{a^r = \alpha \beta}$$