

14, 17, 5

حسن سرفراز

$$x^2 - \omega x + 2 = 0 \quad \Delta = 1\omega - 4(2) = 1\omega - 8 = 17$$

$$\alpha, \beta = \frac{\omega \pm \sqrt{17}}{2} \quad \alpha + \beta = \omega, \alpha \cdot \beta = 2$$

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$$\alpha^2 + \beta^2 = (\alpha + \beta)^2 - 2\alpha\beta = 1\omega - 4 = 17$$

$$\frac{\alpha + \beta\omega}{\alpha\beta^2} \rightarrow \alpha = \frac{\omega + \sqrt{17}}{2} \Rightarrow \xi\alpha = 2(\omega + \sqrt{17})$$

$$\beta = \frac{\omega - \sqrt{17}}{2} \Rightarrow \beta^2 = \frac{(\omega - \sqrt{17})^2}{4} \Rightarrow \alpha\beta^2 = \frac{\omega(\omega - \sqrt{17})^2}{4}$$

$$\frac{\alpha\beta^{-2}}{\alpha\beta^2} + \frac{\beta^3}{\omega}$$

$$\downarrow$$

$$\frac{\alpha}{\alpha\beta^2} = \frac{2(\omega + \sqrt{17})}{\omega(\omega - \sqrt{17})^2} = \frac{1(\omega + \sqrt{17})}{\omega(\omega - \sqrt{17})^2} \times \frac{(\omega + \sqrt{17})^2}{(\omega + \sqrt{17})^2} \Rightarrow$$

$$\frac{1(\omega + \sqrt{17})^3}{\omega \times 1^2} = \frac{(\omega + \sqrt{17})^3}{\xi\omega} = \frac{\xi\alpha}{\alpha\beta^2}, \quad \frac{\beta^3}{\omega} = \frac{(\omega - \sqrt{17})^3}{1 \times \omega}$$

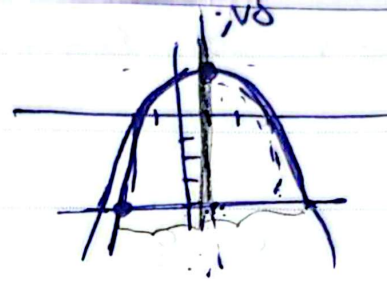
$$\frac{\alpha}{\alpha\beta^2} + \frac{\beta^3}{\omega} = \frac{(\omega + \sqrt{17})^3}{\xi\omega} + \frac{(\omega - \sqrt{17})^3}{\xi\omega} \Rightarrow \frac{(\omega + \sqrt{17})^3 + (\omega - \sqrt{17})^3}{\xi\omega} = \frac{(2\alpha)^3 + (2\beta)^3}{\xi\omega}$$

$$\alpha^3 + \beta^3 = (\alpha + \beta)^3 - 3\alpha\beta(\alpha + \beta) = \frac{1\alpha^3 + 1\beta^3}{\omega} = \frac{\alpha^3 + \beta^3}{\omega} = \frac{(\alpha + \beta)^3 - 3\alpha\beta(\alpha + \beta)}{\omega}$$

$$\Rightarrow \frac{\alpha^3 + \beta^3}{\omega} = \frac{1\omega^3 - 3\omega}{\omega} = \frac{1\omega}{\omega} = 1 \quad \therefore$$

$$\frac{9\omega}{\xi\omega} \mid \frac{\omega}{19}$$

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

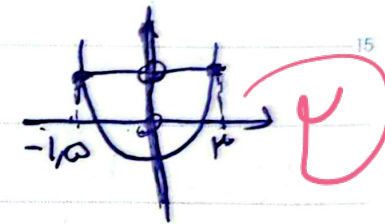


$$S = \left[\frac{-b}{2a} = \frac{1.5}{1} \right]$$

$$\frac{-b}{2a} = \frac{1.5}{1}$$

$$\boxed{\frac{-b}{a} = \frac{1.5}{1}}$$

$$1.5 = \frac{1.5}{1} = \frac{1.5}{1}$$



$$-1.5 + 1.5 = 0$$

$$1.5 - 1.5 = 0$$

$$x_1 - x_2 = \frac{\sqrt{\Delta}}{|a|} = \frac{k}{1} k$$

$$a = 1$$

$$b = 1.5$$

$$c = 0$$

سوال $\left[\frac{k}{1} \right]$ را رضاه

$$\sqrt{\epsilon k^2 - 1.5} = \frac{\epsilon}{1} k$$

$$\epsilon k^2 - 1.5 = \frac{1.5}{1} k^2$$

$$\left(\epsilon - \frac{1.5}{1} \right) k^2 - 1.5 = 0$$

$$\frac{1.5}{1} k^2 = 1.5 \Rightarrow \frac{k^2}{1} = 1 \Rightarrow k^2 = 1$$

$$k = \pm 1$$

$$\boxed{\frac{k^2}{1} = \frac{1.5}{1}}$$

Jahan Nama
CREATIVE NOTEBOOK

$$\beta(-a, y)$$

$$S(-1, 1)$$

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

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

$$s^Y - Yp = \omega$$



$$y = x^r - 8x + p$$

$$y = 9 -$$

$$\text{Ans } \int \frac{-b}{r_a} = -1 \Rightarrow \frac{b}{r_a} = 1 \quad \boxed{b = r_a}$$

$\text{Solve } y \left\{ \begin{aligned} \frac{-\Delta}{ka} = 1 &\Rightarrow \Delta = -ka \rightarrow b' - \sum a_c = -\sum a \\ \sum a' - \sum a_c &= -\sum a \\ \sum a(a-c) &= -\sum a \end{aligned} \right.$

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

$$a - c = -1$$

$$a + 1 = c$$

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

$$\frac{b^x - pCa}{a^x} = a$$

$$\frac{\Sigma a^Y - Y_{ac}}{a^Y} = \omega$$

$$\frac{r_d(r_d - c)}{a^*} = \omega$$

$$Y(Ya - C) = \omega a$$

$$F_a - Y_C = w_g$$

$$-YC = a \quad (\star)$$

$$-YC + 1 = C$$

$$I = \mu C$$

$$C = 1/\mu$$

⑤, ⑥

حسن شرف

$$-x^2 + \Delta x + m = 0 \Rightarrow \Delta = 2\Delta - \epsilon(m)(-1) = 2\Delta + \epsilon m \quad -a$$

$$\frac{-\Delta \pm \sqrt{2\Delta + \epsilon m}}{-1} = \frac{\Delta \mp \sqrt{2\Delta + \epsilon m}}{1}$$

$$\frac{\Delta \mp \sqrt{2\Delta + \epsilon m}}{1} < \frac{9}{1}$$

$$\begin{cases} \textcircled{1} \Delta + \sqrt{2\Delta + \epsilon m} < 9 \\ \textcircled{2} \Delta - \sqrt{2\Delta + \epsilon m} < 9 \end{cases} \Rightarrow$$

①	②
$\sqrt{2\Delta + \epsilon m} < \epsilon$	$-\sqrt{2\Delta + \epsilon m} < \epsilon$
$2\Delta + \epsilon m < 14$	$\sqrt{2\Delta + \epsilon m} > -\epsilon > 0$
$\epsilon m < -9$	$2\Delta + \epsilon m > 0$
$m < \frac{-9}{\epsilon}$	$m > \frac{-2\Delta}{\epsilon}$

$$m = -9, -\epsilon, -\Delta, -4$$

$$\Rightarrow \leftarrow \begin{array}{c} -4, m = \frac{-2\Delta}{\epsilon} \\ \frac{-9}{\epsilon} = -9, m \end{array}$$

$$y = Kx^2 - \epsilon x - 4 \rightarrow S = \left(\frac{\epsilon}{2K}, \frac{-\Delta}{\epsilon K} \right) = \left(\frac{1}{K}, \frac{-\Delta}{\epsilon K} \right) \quad -9$$

$$y = -\epsilon x - \epsilon \quad \Delta = 14 - \epsilon(K)(-4) = 14 + 4\epsilon K$$

$$\frac{-\epsilon - 4K}{K} = -\epsilon \left(\frac{1}{K} \right) - \epsilon$$

$$\left(\frac{1}{K}, \frac{-\epsilon(\epsilon + 4K)}{\epsilon K} \right)$$

$$\frac{-\epsilon - 4K}{K} = \frac{-\Delta - \epsilon K}{K} \Rightarrow -\epsilon - 4K = -\Delta - \epsilon K$$

$$\Rightarrow 2K = \epsilon \Rightarrow K = \frac{\epsilon}{2}$$

$$y_S = \frac{-\epsilon + 4K}{K} = \frac{-14}{1} = -14 \rightarrow \text{نقطه}$$

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

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

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

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

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

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

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

حسب

$$\begin{aligned}
 & y = mx^2 + mx + 1 \\
 & y = -m - x
 \end{aligned}
 \left. \begin{array}{l} \text{در هیچ نقطه‌ای} \\ \Rightarrow \Delta < 0 \\ \text{بر خوردنی‌اند} \end{array} \right\}$$

$$-mx^2 + mx + 1 + x + m = 0 \quad -1.$$

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

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

	-1	$-\frac{1}{5}$
Δ	+	-
	+	+

خ.

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



Jahan Nama
CREATIVE NOTEBOOK

NOTEBOOK

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

SAT ☐

SUN ☐

MON ☐

TUE ☐

WED ☐

THU ☐

FRI ☐

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

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

$$a^r = ra - 1$$

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

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

$$a = 1$$

$$\alpha, a, \beta$$

is

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

$$a^r = \alpha \beta$$