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تالیف شماره ۲۲

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گروه دخترانه دهو A

زهره دهقانی

$$\alpha^2 - \omega \alpha + 2 = 0$$

$$\beta^2 - \omega \beta + 2 = 0 \rightarrow \beta^2 = \omega \beta - 2$$

$$\begin{aligned} \beta^3 &= \beta \times \beta^2 = \beta(\omega \beta - 2) = \omega \beta^2 - 2\beta = \omega(\omega \beta - 2) - 2\beta \\ &= 2\omega \beta - 10 \end{aligned}$$

$$\begin{aligned} \beta^4 &= \beta \times \beta^3 = \beta(2\omega \beta - 10) = 2\omega \beta^2 - 10\beta = 2\omega(\omega \beta - 2) - 10\beta \\ &= 10\omega \beta - 84 \end{aligned}$$

$$\begin{aligned} \beta^5 &= \beta \times \beta^4 = \beta(10\omega \beta - 84) = 10\omega \beta^2 - 84\beta = 10\omega(\omega \beta - 2) - 84\beta \\ &= 20\omega \beta - 210 \end{aligned}$$

$$\alpha + \beta = \omega \rightarrow \alpha = \omega - \beta$$

$$\begin{aligned} \text{و چون} \quad \varepsilon \alpha &= \varepsilon(\omega - \beta) = 20 - \varepsilon \beta \end{aligned}$$

$$\varepsilon \alpha + \beta^5 = (20 - \varepsilon \beta) + (20\omega \beta - 210) = 20\omega \beta - 190$$

$$\omega \beta^2 = \omega(\omega \beta - 2) = 2\omega \beta - 10$$

$$\frac{20\omega \beta - 190}{2\omega \beta - 10} = \frac{10\omega(\omega \beta - 2)}{\omega(\omega \beta - 2)} = \frac{10\omega}{\omega} = 10$$

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$$f(x) = ax^2 + bx + c$$

$$x = \frac{3 + (-15)}{2} = \frac{-12}{2} = -6$$

$$\text{مقدار} = \frac{\text{مقدار}}{2}$$

(11)

$$\text{مقدار} = 2 \times \frac{2}{5} = \frac{4}{5}$$

پایین صفت بزن: جواب

$$|r_1 - r_2| = \frac{\sqrt{\Delta}}{|a|} \Rightarrow \frac{\sqrt{b^2 - 4ac}}{|a|}$$

$$a = 1$$

$$b = 4k$$

$$c = 5$$

$$|r_1 - r_2| = \sqrt{(4k)^2 - 20} = \sqrt{16k^2 - 20}$$

$$\sqrt{16k^2 - 20} = \frac{4}{k}$$

$$16k^2 - 20 = \frac{16k^2}{k^2}$$

(12) ✓

$$16k^2 - 20 = 16$$

$$16k^2 = 36 \Rightarrow k^2 = 9 \Rightarrow k = 3$$

$$\left[\frac{k^2}{k} \right] = \left[\frac{9}{3} \right] = 3$$

چون y دو نقطه برابر است $\rightarrow$ قرینه اند

$$x = \frac{y + (-\omega)}{2} = -1$$

عرف مساحت = فاصله بین خط ϵ خط ω (میان)

$$\epsilon p = 1 \rightarrow p = \frac{1}{\epsilon}$$

$$(x+1)^2 = \epsilon p (y-k) = (y-k)$$

$$(x+1)^2 + k = 0 \rightarrow x^2 + 2x + (1+k) = 0$$

$$\alpha + \beta = -2$$

$$\alpha^2 + \beta^2 = \omega$$

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

$$(0+1)^2 = y-k \rightarrow y = k+1 = -\frac{y}{2} + 1 = -\frac{1}{2}$$

بنابراین
پایین صفحه

$$(-\frac{1}{2}, 0)$$

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

$$x^2 - \omega x - m = 0$$

$$f(\epsilon, \omega) = \epsilon, \omega^2 - \omega(\epsilon, \omega) - m = 2, 2\omega - 2\epsilon, \omega - m$$

$$-2, 2\omega - m > 0 \rightarrow m \leq -3 = -2, 2\omega - m$$

$$\Delta = 2\omega + \epsilon m > 0 \rightarrow m > -4, 2\omega \rightarrow m > -4$$

$$-4 \leq m \leq -3$$

اعداد صحیح: $-3, -2, -1, 0, 1, 2, 3, 4$

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$$a = m \quad b = -1 \quad c = \omega m - 1$$

$$y_{min} = \frac{\epsilon a c - b^2}{\epsilon a} \rightarrow \frac{\epsilon m (\omega m - 1) - 1 \epsilon \epsilon}{\epsilon m} = y$$

$$\frac{\omega m^2 - \epsilon m - 1 \epsilon \epsilon}{\epsilon m} = y$$

$$\omega m^2 - \epsilon m - 1 \epsilon \epsilon = \gamma m$$

$$\omega m^2 - \gamma m - 1 \epsilon \epsilon = 0$$

$$m = \frac{\gamma \pm \sqrt{\gamma^2}}{2\omega} \rightarrow m = \mu / m = -\frac{\gamma}{\omega}$$

$$n = \frac{-b}{\gamma a} = \frac{1 \epsilon}{\gamma m} = \frac{\gamma}{m} = \frac{\gamma}{\gamma} = 1$$

(1) ✓

(n=1) ✓

$$n^2 + \gamma(a+1)n + \gamma a - 1 = 0$$

$$\alpha + \beta = -\gamma(a+1), \quad \alpha\beta = \gamma a - 1$$

$$\alpha^2 = a\beta, \quad \beta = \frac{\alpha^2}{a} \quad \leftarrow \text{Substituting}$$

$$\alpha + \frac{\alpha^2}{a} = \gamma a - 1$$

$$\alpha^2 = a(\gamma a - 1) \quad \star$$

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

$$\alpha + \frac{\alpha^2}{a} = -\gamma(a+1) \quad \leftarrow \text{Substituting}$$

$$\alpha(a + \alpha) = -\gamma a(a+1) \quad \star \star$$

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$$\alpha = \frac{-va(a+1)}{a+\alpha}$$

از $\star\star$: v
اذا ω

$$(a = +1)$$

پایین منته بجزن

$$t = x^2$$

$$t^2 - vt - \omega = 0$$

$$x^4 - vx^2 - \omega = 0$$

$$t = \frac{v \pm \sqrt{v^2 + 4\omega}}{2}$$

$$x = \pm \sqrt{\frac{v \pm \sqrt{v^2 + 4\omega}}{2}}$$

چون $S=0$
 $r p^2$

$$t^2 = vt + \omega$$

$$r p^2 = r t^2 = r(vt + \omega) = 1 \cdot t + 1 \cdot \omega$$

Ⓟ ✓

$$= v(v + \sqrt{v^2 + 4\omega}) + 1 \cdot \omega$$

$$\omega + v\sqrt{v^2 + 4\omega}$$

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$$y = kn^2 - \epsilon n - y \quad n = \frac{y}{k}$$

$$y = \frac{\epsilon}{k} - \frac{1}{k} - y = -\frac{\epsilon}{k} - y$$

$$-\frac{\epsilon}{k} - y = -\frac{1}{k} - \epsilon$$

$$-y = -\frac{\epsilon}{k} \rightarrow k = -y$$

$$y = \epsilon - y = -1$$

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$$y = -mx^2 + mx + 1$$

$$y = -x - m$$

$$-mx^2 + mx + 1 = -x - m$$

$$mx^2 - (m+1)x - (m+1) = 0$$

$$\Delta < 0 \rightarrow$$

$$(m+1)^2 + 4m(m+1) < 0$$

$$(m+1)(5m+1) < 0$$

(P)✓

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

$$A (3, -4) \\ B (-1, 5, -4)$$

عرض یابی



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$$\frac{n_A + n_B}{2} = n_s = -\frac{b}{2a}$$

$$\rightarrow n_A + n_B = \frac{-b}{a} = -1,5 + 3 = \underline{1,5}$$

$$n_s \cdot \frac{-5 + 3}{2} = -1$$

۴- راس سهمی میانگین نقطه است.

$$\frac{-b}{2a} \rightarrow \frac{-b}{a} = -2$$

$$(y-1) = a(x+1)^2 \rightarrow \frac{ax^2}{a} + \frac{2ax}{b} + \frac{a+1}{c}$$

$$\alpha^2 + \beta^2 = 5 \rightarrow s^2 - 2p \quad \begin{matrix} s = -2 \\ p = \frac{a+1}{a} \end{matrix} \quad -\frac{2a-2}{a} = -1$$

$$\rightarrow a = -\frac{2}{3}$$

$$c = a+1 = -\frac{2}{3} + 1 = \frac{1}{3}$$

$$p = \alpha\beta = 2a-1$$

$$\alpha^2 = \alpha\beta \rightarrow \alpha^2 = 2a-1 \rightarrow (a-1)^2 = 0 \rightarrow a=1$$

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$$a=1 \rightarrow \alpha^2 + 6\alpha + 1 = 0 \rightarrow \Delta < 0$$

شرط وجود دو ریشه برای $a=1$