

Subject:

تاریخ:
 ۱۳۰۰

بنام خدا

Sa Su Mo Tu We Th Fr

پنجشنبه

$$y = (a-1)x^2 + x + 1 \quad \text{و} \quad -\frac{b}{4a} = 1$$

$$\Rightarrow \frac{-1}{2(a-1)} = 1 \Rightarrow -1 = 2a - 2 \Rightarrow \frac{1}{2} = a$$

$$-\frac{1}{2}x^2 + x + 1 = 0 \quad \text{و} \quad -x^2 + 2x + 2 = 0$$

$$\xrightarrow{x-1} x^2 - 2x - 2 = 0 \rightarrow (x-4)(x+2) \rightarrow \begin{matrix} -2 \\ 4 \end{matrix}$$

محل صفت

x	x_1	x_2
$f(x)$	$-$	$+$

$$f(x) = mx^2 - 8x + m$$

$$\Delta > 0$$

$$\rightarrow 28 - 4m^2 > 0 \rightarrow 28 > 4m^2 \Rightarrow \frac{28}{4} > m^2 \Rightarrow m < \frac{7}{2}$$

$$\frac{-8}{2m} < m < \frac{7}{2}$$

از طرفی $m < 0$ است جدول

$$\Rightarrow m \in \left(-\frac{7}{2}, 0\right)$$

$$\frac{w - \sqrt{\delta}}{w}, \frac{w + \sqrt{\delta}}{w} \rightsquigarrow p_i = n^r - \delta n + \rho$$

(2)

$$\delta = \frac{w - \sqrt{\delta} + w + \sqrt{\delta}}{w} = \underline{\underline{1}} \quad \rho = \frac{q - \delta}{q} = \frac{\varepsilon}{q}$$

$$\Rightarrow \underline{\underline{y = n^r - r n + \frac{r}{q}}}$$

$$w \alpha^r + \beta^r = 1^r$$

$$\frac{-b}{a} = \frac{1}{r} = \varepsilon \Rightarrow \alpha + \beta \leq \varepsilon$$

(19)

$$\rightarrow \beta \leq \varepsilon - \alpha$$

$$w \alpha^r + (\varepsilon - \alpha)^r = 1^r \Rightarrow w \alpha^r + 1^r + \alpha^r - 1^r = 1^r$$

$$w + \beta^r = 1^r$$

$$\varepsilon \alpha^r - 1^r + \varepsilon = 0$$

$$\beta^r \leq 1$$

$$\alpha^r - r \alpha + 1 = 0 \rightarrow \underline{\underline{\alpha = 1}}$$

$$\Rightarrow \beta = \pm w \rightsquigarrow \alpha < \beta$$

$$\frac{m+r}{r} \leq \rho \Rightarrow \frac{m+r}{r} = w \times 1 \Rightarrow \beta \leq w$$

$$\rightarrow m + r = r \Rightarrow \underline{\underline{m = 0}}$$

$$a(n-1)^2 + 9$$

③

$$an^2 + \epsilon an + \epsilon a + 9 = 0$$

$$\therefore \text{work} \Rightarrow \epsilon a + 9 = 0 \Rightarrow \underline{a = -1}$$

$$\Rightarrow -(n-1)^2 + 9 = -n^2 - \epsilon + \epsilon n + 9 = -n^2 + \epsilon n + 8$$

$$a \circ c \otimes = b \Rightarrow -1, 8 \rightarrow \underline{(-1, 8)}$$

$$\begin{array}{c} -1 \quad 8 \\ - \quad + \quad + \\ \hline \end{array} \Rightarrow \underline{(-1, 8)}$$

work is done

④

$$\alpha n^2 + \sqrt{n} + 9\beta = 0 \quad \alpha\beta = \frac{9\beta}{\alpha} \quad \alpha + \beta = \frac{\sqrt{n}}{\alpha}$$

$$\Rightarrow \alpha\beta - \frac{9\beta}{\alpha} = 0 \rightarrow \alpha^2\beta - 9\beta = 0$$

$$\alpha\beta(\alpha - 1) = 0 \rightarrow \textcircled{1} \alpha = 1, \beta = 9 \rightarrow \text{ق ق}$$

$$\rightarrow \textcircled{2} \alpha = 0, \beta = 0 \rightarrow \text{ق ق}$$

چون مجموع 8 نصف شده می شود

$$\rightarrow \frac{1}{\alpha} + \frac{1}{\beta} = \frac{1}{4} + \frac{1}{1} = \underline{\left(\frac{5}{4}\right)}$$

$$\alpha^r - m\beta \leq 1$$

$$m^r + m\alpha - \gamma m \leq 0$$

⑤

$$\alpha^r + \beta^r - \gamma m \leq 1$$

$$\delta^r - \gamma \rho$$

$$\alpha^r + m\alpha - \gamma m = 0$$

$$\alpha^r - \gamma m \leq -m\alpha$$

$$\beta^r - \gamma m \leq -m\beta$$

$$\delta = -m, \rho = -\gamma m$$

$$\Rightarrow m^r + \varepsilon m - \gamma m = 1 \Rightarrow m^r + \gamma m - 1 \leq 0$$

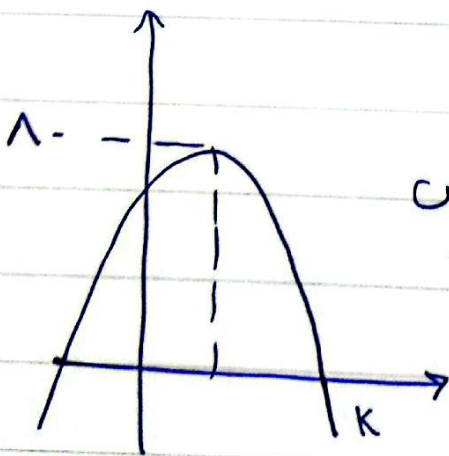
$$(m + \varepsilon)(m - \gamma) \leq 0$$

$$m = -\varepsilon \quad m = \gamma$$

$$\Delta \xrightarrow{m = -\varepsilon} \alpha^r - \varepsilon \alpha + 1 \leq 0 \rightarrow 14 - 3\varepsilon \leq 0 \rightarrow \varepsilon \geq \frac{14}{3}$$

$$\Delta \xrightarrow{m = \gamma} \alpha^r + \gamma \alpha - \varepsilon \leq 0 \Rightarrow \Delta \geq 0 \rightarrow \varepsilon \leq \gamma$$

$$\Rightarrow \underline{\varepsilon} = \gamma \Rightarrow \text{lower bound} = -m \leq \gamma \rightarrow \text{جواب}$$



$$f(x) \leq m\alpha^r + \varepsilon \alpha + \frac{m}{\rho} + \gamma$$

$$\text{or } \omega_1^r, \omega_2^r = 1 \Rightarrow \frac{-\Delta}{\varepsilon \alpha} \leq 1$$

$$\frac{-(14 - \gamma m^r - \gamma \Lambda m)}{\varepsilon m} = 1$$

$$-14 + \gamma m^r + \gamma \Lambda m \leq \gamma m$$

$$\gamma m^r - \varepsilon m - 14 \leq 0$$

$$m^r - \gamma m - 1 \leq 0$$

$$m \xrightarrow{f} kn^k + \varepsilon n + 950 \rightarrow \Delta = 14 - \varepsilon \times 9 \times \varepsilon$$

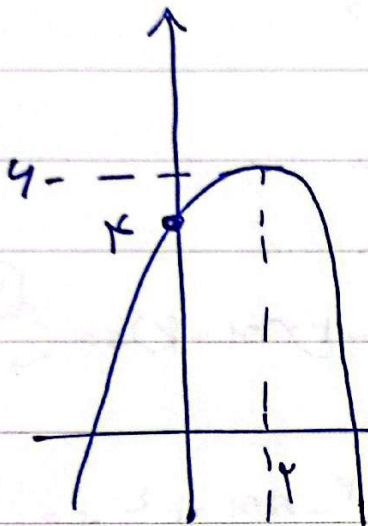
$$\rightarrow \bigcirc \bigcirc \bar{\varepsilon}$$

$$m \xrightarrow{-f} -kn^k + \varepsilon n + 450 \rightarrow \Delta > 0$$

$$-kn^k + kn + 450 \rightarrow kn^k - kn - 450 \rightarrow (n-k)(n+1)50$$

$$\rightarrow -1, (\mu) \rightarrow (+) \checkmark$$

9



$$\frac{1}{\alpha} + \frac{1}{\beta} = ?$$

$$\frac{\alpha + \beta}{\alpha\beta} = ?$$

$$\frac{s}{p} = ?$$

$$an^2 + bn + \frac{c}{\eta} = y$$

$$\frac{b}{\eta a} = \eta \Rightarrow \varepsilon a = -b$$

$$\rightarrow an^2 - \varepsilon an + \varepsilon = y$$

$$\rightarrow -\frac{1}{\eta} n^2 + \eta n + \varepsilon = 0 \quad \varepsilon a - \eta a + \varepsilon = y$$

$$-\eta a + \varepsilon = y \Rightarrow \underline{\underline{a = -\frac{1}{\eta}}}$$

$$s = \frac{+\eta}{+\frac{1}{\eta}} = (\varepsilon) \quad p = \frac{\varepsilon}{-\frac{1}{\eta}} = -1 \Rightarrow \frac{s}{p} = \left(-\frac{1}{\eta}\right)$$

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$$\eta^2 - (\varepsilon a + \varepsilon) \eta + (\eta a n^2 + \eta a + \eta) = 0$$

$$\underline{\eta = \eta}, \quad \varepsilon - \eta a - 1 + \eta a + \eta a + \eta = 0$$

$$1 - a - 1 = 0$$

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$$x^p - (\varepsilon a + \varepsilon)x + (\mu a^p + \gamma a + \mu)z_0$$

(1.)

$$\xrightarrow{a \neq 1} \varepsilon - \mu a - 1 + \mu a^p + \gamma a + \mu z_0$$

$$\mu a^p - \mu a - 1 z_0 \xrightarrow{(5)}$$

$$a^p - \mu a - \mu z_0$$

$$(a - \mu)(a + 1) z_0 \rightarrow \begin{matrix} -\frac{1}{\mu} = a \\ 1 = a \end{matrix}$$

$$\xrightarrow{a \neq 1} x^p - \mu x + 1 z_0 \rightarrow (x - \mu)(x - \varepsilon) z_0 \xrightarrow{(4)} \mu$$

$$\xrightarrow{a \neq \frac{1}{\mu}} x^p - \frac{1}{\mu} x + \frac{\varepsilon}{\mu} z_0 \rightarrow \mu x^p - \mu x + \varepsilon z_0$$

$$\mu x^p - \mu x + 1 z_0$$

$$\mu = \frac{\gamma}{\mu} \rightarrow \left(\frac{\mu}{\mu} \right)$$