

درس بازاری را در - یا زدم دستم

$$y = (a-1)n^2 + n + 1 \quad n=2$$

(سوال 1)

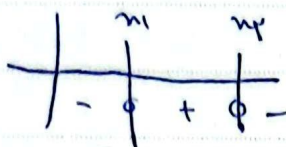
$$n_5 = 2 \Rightarrow \frac{-b}{2a} = \frac{-1}{2a-1} = 2 \Rightarrow \varepsilon a - \varepsilon = -1$$

$$\varepsilon a = 1 \rightarrow a = \frac{1}{\varepsilon} \rightarrow \frac{1}{\varepsilon} n^2 + n + 1$$

$$n = \frac{-1 \pm \sqrt{\varepsilon}}{-\frac{1}{\varepsilon}} \rightarrow n_1 = -2$$

$$\rightarrow n_2 = 4$$

$$\Delta = 1 + \varepsilon$$



D(1)

$$\rightarrow -\frac{1}{\varepsilon} < m < 0 \quad m \in (-\frac{1}{\varepsilon}, 0)$$

$$f(n) = mn^2 - \omega n + m \quad (2 \text{ سوال})$$

$$m < 0 \quad \Delta > 0 \quad 2d - \varepsilon m^2 > 0$$

$$\varepsilon m^2 < 2d \rightarrow m^2 < \frac{2d}{\varepsilon}$$

$$\rightarrow -\frac{d}{\varepsilon} < m < \frac{d}{\varepsilon}$$

$$g = n^2 - 5n + 9$$

$$\frac{5 + \sqrt{5}}{2}, \frac{5 - \sqrt{5}}{2} \quad (3 \text{ سوال})$$

$$S: \frac{5 + \sqrt{5} + 5 - \sqrt{5}}{2} = \frac{10}{2} = 5$$

$$\frac{5 + \sqrt{5}}{2} + \frac{5 - \sqrt{5}}{2} = \frac{10 - 0}{2} = 5$$

$$y = n^2 - 2n + \frac{\varepsilon}{9}$$

$$2n^2 - 1n + m + 1 \leq \alpha < \beta \quad 3\alpha^2 + \beta^2 \leq 12 \quad (\varepsilon \text{ سوال})$$

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

$$3\alpha^2 + (\varepsilon - \alpha)^2 = 12$$

$$3\alpha^2 + \alpha^2 + 14 - 11\alpha - 12 \leq 0$$

$$\varepsilon \alpha^2 - 11\alpha + \varepsilon = 0 \rightarrow \alpha^2 - 11\alpha + 14 = 0$$

$$\frac{m+1}{2} = 2 \rightarrow m = 3$$

$$(\alpha - \varepsilon) \leq 0$$

$$\beta = 3 \quad \alpha = 1$$

$$y = an^2 + bn + c \xrightarrow{c=d} (0, d) \quad 5(2, 9) \quad (0, 1) \text{ سوال}$$

$$(2, 9) - \frac{b}{2a} = 9 \rightarrow \varepsilon a = -b$$

$$\rightarrow \varepsilon a + 2b + d = 9 \quad 2a + b = 9 \rightarrow -2a = 9 \rightarrow a = -\frac{9}{2}$$

$$-n^2 + \varepsilon n + d = 9 \quad \begin{array}{c|c|c} -1 & \varepsilon & d \\ \hline - & + & - \end{array} \rightarrow (-1, d) \text{ سوال}$$

$$\alpha n^2 - \nu n + 9\beta = 0 \quad \frac{1}{\alpha} + \frac{1}{\beta} = ? \quad \beta = ? \quad (4 \text{ سوال})$$

$$9\beta = \frac{9\beta}{\alpha} \Rightarrow \alpha = 9 \Rightarrow \alpha = \pm 3$$

$$\alpha = \frac{\nu}{\mu} \rightarrow \mu n^2 - \nu n + 9\beta = 0 \rightarrow S = \frac{\alpha + \beta}{\mu} = \frac{\nu}{\mu} \rightarrow \beta = -\frac{\nu}{\mu} \rightarrow 60 \text{ سوال}$$

$$\alpha = -\frac{\nu}{\mu} \rightarrow -\mu n^2 - \nu n + 9\beta = 0 \quad \alpha + \beta = \frac{-\nu}{\mu} \rightarrow \beta = \frac{\nu}{\mu} \checkmark$$

$$\frac{\alpha + \beta}{\alpha\beta} = \frac{-\frac{\nu}{\mu} + \frac{\nu}{\mu}}{\frac{\nu}{\mu} \times \frac{\nu}{\mu}} = \frac{-\frac{\nu}{\mu}}{\frac{\nu^2}{\mu^2}} = \frac{-\mu}{\nu}$$

$$n^2 + mn - \nu m = 0 \quad \alpha^2 - m\beta = 1 \quad (5 \text{ سوال})$$

$$\xrightarrow{B} m\beta = \nu m - \beta^2 \quad \alpha^2 - \nu\beta + \beta^2 = 1$$

$$\alpha^2 + \beta^2 - \nu m = 1 \rightarrow m^2 + \nu m = 1$$

$$5 \leq \nu p \leq m^2 + \varepsilon m \quad (m + \varepsilon)(m - \nu) = 0$$

$$\hookrightarrow m = -\varepsilon, \nu$$

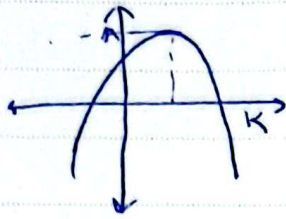
$$\xrightarrow{m \leq \nu} n^2 + \nu n - \nu = 0 \rightarrow \Delta = ? \quad \frac{-b}{a} = -\nu$$

$$\xrightarrow{m \leq -\varepsilon} n^2 - \varepsilon n + 1 \rightarrow \Delta < 0 \quad \times$$

Arman

$$f(n) = mn^2 + \epsilon n + \frac{m}{\gamma} + V$$

(100)



$$\frac{-\Delta}{\epsilon a} \leq 1$$

$$\frac{\epsilon a c - b^2}{\epsilon a}$$

$$\frac{\gamma m^2 + \gamma \epsilon m - 14}{\epsilon m} \leq 1$$

$$\gamma m^2 + \gamma \epsilon m - 14 \leq \gamma \epsilon m$$

$$\gamma m^2 - \epsilon m - 14 \leq 0$$

$$m^2 - \epsilon m - 14 \leq 0$$

$$(m-1)(m+14) \leq 0$$

$$\hookrightarrow m = \epsilon, -1$$

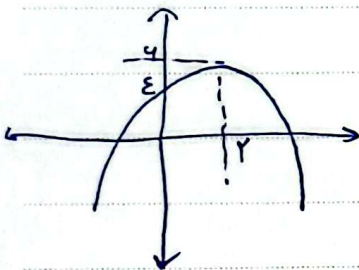
$$m \leq \epsilon \rightarrow y = \epsilon n^2 + \epsilon n + 9 \rightarrow \Delta < 0$$

$$m = -1 \rightarrow y = -n^2 + \epsilon n + 4 \rightarrow \Delta > 0$$

$$n^2 + \epsilon n - 12 \geq 0 \quad (n+4)(n-3) \geq 0$$

$$\hookrightarrow n \leq -4, n \geq 3$$

نقطة K هي



$$\frac{1}{a} + \frac{1}{b} \leq 2$$

(900)

$$y = an^2 + bn + c$$

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

$$(2, \epsilon) \rightarrow \epsilon a + 2b + \epsilon = 4 \quad \gamma a + \underbrace{b}_{-\epsilon a} \leq 1 \rightarrow -\gamma a = 1$$

$$y = -\frac{1}{\gamma} n^2 + 2n + \epsilon$$

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

$$\frac{-\frac{b}{a}}{\frac{c}{a}} = \frac{\epsilon}{-1} = -1 \quad b = 2$$

Arman

$$n^2 - (\varepsilon a + \varepsilon)n + (\mu a^2 + 4a + \mu)s.$$

(1.02)

$$\underline{n^2}$$

$$\varepsilon - 1a - 1 + \mu a^2 + 4a + \mu = 0$$

$$\mu a^2 - \mu a - 1 = 0$$

$$\Rightarrow a + b + c = 0 \Rightarrow a = 1, a = -\frac{1}{\mu}$$

$$\underline{a=1} \rightarrow n^2 - 1n + 1\mu = 0 \quad (n-1)(n-\mu) = 0 \rightarrow n = 1, \textcircled{4}$$

$$\hookrightarrow \Delta \geq 0$$

$$\underline{a=-\frac{1}{\mu}} \rightarrow n^2 - \frac{1}{\mu}n + \frac{\varepsilon}{\mu} = 0 \quad \Delta = \frac{4\varepsilon}{9} - 4\frac{1}{\mu} \geq \frac{4}{9}$$

$$n \leq \frac{\frac{4}{9} \pm \frac{\varepsilon}{\mu}}{2} \rightarrow n \leq \textcircled{\frac{\mu}{\mu}}, 1$$