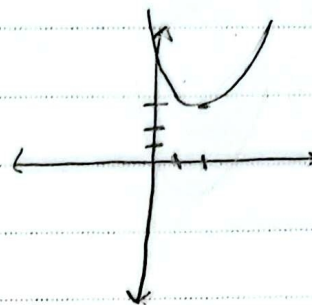


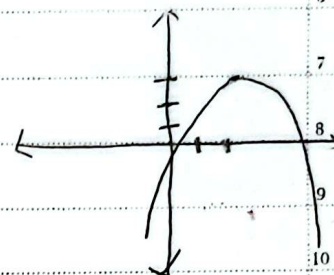
درس اول: یازدهم ریاضی

الف) $y = x^2 - 4x + 7$ $\min \left| -\frac{b}{2a} = 2 \right|$
 μ



سوال 1

ب) $y = -x^2 + 4x - 1$ $\max \left| -\frac{b}{2a} = 2 \right|$
 μ



$y = 2x^2 + (m+1)x + \frac{1}{p}m + 2$

سوال 2

الف) $\Delta > 0 \quad (m+1)^2 - 4 \left(\frac{1}{p}m + 2 \right) = m^2 + 2m - \frac{4}{p}m - 8$

$= m^2 + 2m - 4m - 8 > 0$
 $(m-2)(m+4) > 0$

$\rightarrow m \in (-\infty, -4) \cup (2, +\infty)$

$\Delta = 0$ $\rightarrow m = -4$
 $\rightarrow m = 2$

$\Delta < 0$ $\rightarrow m \in (-4, 2)$

$\Delta \geq 0$ $\rightarrow m \in (-\infty, -4] \cup [2, +\infty)$

$y = (m-2)x^2 - 2(m+1)x + 1$

$S < 0 \quad P > 0 \quad \Delta > 0$

$\Delta > 0 \rightarrow (2m-2)^2 - 4(m-2)(1) = 4m^2 + 4 + 4m - 4m - 4 = 4m^2 - 4m + 4 > 0$

$\rightarrow m^2 - m + 1 > 0$

$\rightarrow \Delta < 0$

Arman

$$S < 0 \rightarrow \frac{r(m+r)}{m-r} < 0 \quad \begin{array}{c|c|c} -1 & & r \\ \hline + & - & + \end{array} \Rightarrow m \in (-1, r)$$

$p > \frac{1}{m-\gamma}$ $\begin{array}{c} p \\ \hline - \quad + \end{array} \Rightarrow m \in (p, +\infty)$

$\Rightarrow \textcircled{1} \cap \textcircled{2} = \emptyset$

$$|- \alpha| > |\beta| \quad \Delta > 0 \quad p < 0 \quad S < 0$$

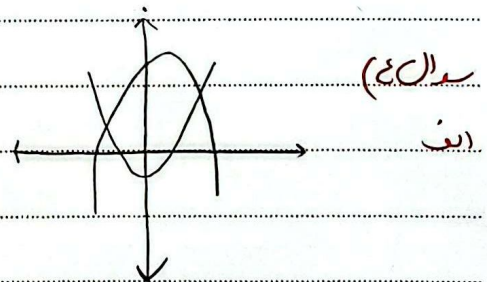
$\Delta > 0 \xrightarrow{\text{ب. ا. اف.}} \text{دو راهه برقرار} \quad \rho < 0 \Rightarrow \frac{1}{m-2} \Rightarrow m < 2 \text{ ①}$

10 $S \subset \mathcal{O} \xrightarrow{\text{الف. ب}} m \in (1, 2)$ (2)

12 $\cap \mathbb{P} \rightarrow m \in (-1, 2)$

$$y_s(m-r)nk - r(m+1)n+1.$$

$$17. \Delta \geq 0 \quad p \leq 0$$



$$19 \quad (-r_m - r)^P - \frac{\varepsilon(m - r)(1 - \varepsilon)}{1 - m - r} = \varepsilon m^P + \varepsilon + \varepsilon m - \varepsilon m + 1 - \varepsilon$$

$$m^2 - 1m + 21 > 0 \rightarrow \frac{10}{m-2} < 0 \rightarrow \frac{1}{-} \frac{1}{+} \Rightarrow m < 2$$

$$\frac{-b}{2a} = \frac{4m+1}{4m-6} = \frac{m+1}{m-1} = -1 \Rightarrow -4m+6 = m+1 \Rightarrow 4m = 5 \Rightarrow m = \frac{5}{4}$$

Arman

$$y = \frac{r}{p} n^2 - (r \sin \alpha) n + \frac{c}{p} =$$

$$\Delta \gg 0 \quad \varepsilon \sin^2 \alpha - \varepsilon \left(\frac{r}{p} \right) \left(\frac{c}{p} \right) \Rightarrow \varepsilon \sin^2 \alpha - \varepsilon \gg 0$$

$$\varepsilon \sin^2 \alpha \gg \varepsilon$$

$$\sin^2 \alpha \gg 1 \rightarrow \sin^2 \alpha \gg 1$$

$$\rightarrow \sin^2 \alpha \leq 1 \Rightarrow \sin \alpha \leq \pm 1$$

$$\xrightarrow{\sin \alpha = 1} \frac{r}{p} n^2 - r n + \frac{c}{p} = 0 \quad \Delta = \varepsilon - \varepsilon \gg 0 \rightarrow n = \frac{r + \sqrt{0}}{\frac{\varepsilon}{p}} = \frac{r}{\frac{\varepsilon}{p}}$$

$$\xrightarrow{\sin \alpha = -1} \frac{r}{p} n^2 + r n + \frac{c}{p} = 0 \quad \Delta = \varepsilon - \varepsilon \gg 0 \rightarrow n = \frac{-r + \sqrt{0}}{\frac{\varepsilon}{p}} = \frac{-r}{\frac{\varepsilon}{p}}$$

$$\frac{(pn^2 - rn - 1)(pn^2 - rn - 2)}{(n-1)(n+1)(n-2)(n+1)}$$

$$1 - nr$$

$$(1 - nr)(n+1)$$

$$\rightarrow \frac{pn^2 - rn - 1}{pn^2 + pn} \mid \frac{n-1}{n+1}$$

$$\frac{n-1}{-n+1}$$

$$= 4n^2 + 13n + 2$$

$$\downarrow \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-149 \pm \sqrt{149^2 - 4 \cdot 4 \cdot 2}}{2 \cdot 4}$$

$$\rightarrow \frac{pn^2 - rn - 2}{-pn^2 - pn} \mid \frac{n+1}{n-2}$$

$$= \frac{219}{\pm 2}$$

$$\frac{-2n - 0}{-2n + 0}$$

$$m n^2 - (m+r) n - r =$$

$$r(\alpha + \beta) = d(\alpha \beta) + v$$

$$\frac{r_{m+4}}{m} = \frac{-10 + 4m}{m}$$

$$\rightarrow r_{m+4} = -10 + 4m$$

$$\frac{-10}{m} + v = \frac{-10 + 4m}{m}$$

$$\rightarrow \varepsilon m \leq 14 \Rightarrow m \leq \varepsilon$$

Arman

$$\alpha^2 + \beta^2 \leq 5^2 = 25 \quad r p \leq \left(\frac{r}{p} \right)^2 - r \left(-\frac{1}{p} \right) = \frac{9}{\varepsilon} + 1 = \frac{13}{\varepsilon}$$

$$n^2 - 2n + 1 = \frac{\epsilon a + \beta d}{\alpha \beta^2}$$

(9.11.12)

$$S = d = \alpha + \beta \Rightarrow \alpha = d - \beta$$

$$\beta^2 - 2\beta + 1 = 0 \Rightarrow \beta^2 - 2\beta + 1 = 0 \xrightarrow{\times \alpha} \alpha \beta^2 - 2\alpha \beta + \alpha = 0$$

$$\beta^2 - (2\beta - 1) = 0 \Rightarrow \beta^2 - 2\beta + 1 = 0 \Rightarrow 1 - 2\beta + 1 = 0 \Rightarrow 2 - 2\beta = 0 \Rightarrow \beta = 1$$

$$\Rightarrow \beta^2 = 1 - 2\beta + 1 = 2 - 2\beta \Rightarrow \beta^2 = 2(1 - \beta) \Rightarrow \beta^2 = 2\alpha$$

$$\alpha^2 \beta - 2\alpha\beta + 1 = 0 \Rightarrow \alpha^2 \beta - 2\alpha\beta + 1 = 0$$

$$\frac{\epsilon(\alpha - \beta) + 4\sqrt{9\beta - 21}}{\alpha(2\beta - 1)} = \frac{20 - \epsilon\beta + 4\sqrt{9\beta - 21}}{2\alpha\beta - 10} = \frac{4\sqrt{9\beta - 21} - 19}{2\alpha\beta - 10}$$

$$\frac{19(4\sqrt{9\beta - 21})}{2\alpha\beta - 10} = 19$$

$$\begin{cases} \epsilon a + 2b + \epsilon = 12 \\ 9a - 2b + \epsilon = \epsilon \end{cases}$$

(9.11.12)

$$y = ax^2 + bx + c$$

$$y_1 = 2n + 10 \xrightarrow{n=2} y = 12 \xrightarrow{n=-1} y = 2$$

$$\begin{cases} 2a + b = d \\ 3a - b = 0 \end{cases}$$

$$2a \leq d \rightarrow a \leq \frac{d}{2}$$

$$b = 2$$

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

Arman

$$y = 2n^2 + (m+1)n + m + 4$$

سوال ۱۱

$$y = n \Rightarrow n = 2n^2 + (m+1)n + m + 4$$

$$\Rightarrow 2n^2 + m \cdot n + m + 4 = 0$$

Δ 50 ←

$$m^2 - 2(2)(m+4) = m^2 - 4m - 8 = 0$$

$$(m-12)(m+2) = 0$$

$$\hookrightarrow m = 12, m = -2$$