

تکلیف شصت و یکم

حزین

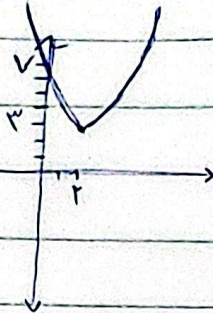
تکلیف شصت و یکم

الف) $y = x^2 - 5x + 4$

min $\left| \begin{array}{l} \frac{-b}{2a} = 2.5 \\ \frac{-\Delta}{4a} = 1.25 \end{array} \right.$

(1)

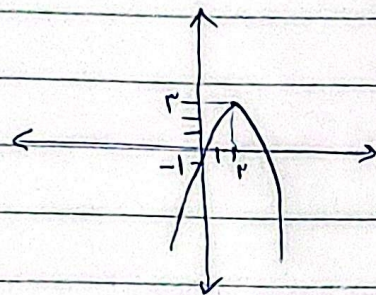
$\Delta = 16 - 20 \rightarrow \Delta < 0$



2

ب) $-x^2 + 5x - 1$

max $\left| \begin{array}{l} \frac{-b}{2a} = 2.5 \\ \frac{-\Delta}{4a} = 6.25 \end{array} \right.$



ج) $\Delta > 0$ $(m+1)^2 - 1\left(\frac{1}{m}m+1\right) = m^2 - 2m - 1 > 0$

(2)

$\begin{array}{l} m = a \\ m = -c \end{array}$

$\Rightarrow m \in \mathbb{R} - [-5, 1]$

د) $\Delta = 0$ $m^2 - 2m - 1 = 0$

$m = -5, m = 1$

(3)

ه) $\Delta < 0$ $m^2 - 2m - 1 < 0$

$\begin{array}{l} m = a \\ m = -c \end{array}$

$\frac{-5}{2} < m < \frac{1}{2}$

$m \in (-2.5, 0.5)$

و) $\Delta > 0$ $m^2 - 2m - 1 > 0$

$m \in (-\infty, -5] \cup [1, +\infty)$



Senobar

الف) $\Delta > 0$ $\frac{2m+2}{m-2} < 0$ $\frac{-1}{+} \frac{2}{-} \frac{+}{+}$ $(-1, 2)$ 5

$S < 0$

$P > 0$ $\frac{10}{m-2} > 0$ $\frac{2}{-} \frac{+}{+}$ $(2, +\infty)$ 6

چون هیچ اشتراک ندارند
دیگر نام نیست شرط
 Δ را بر سر بگیریم

$$m = \emptyset$$

5
6

ب) $S < 0$ $\frac{2m+2}{m-2} < 0$ $\frac{-1}{+} \frac{2}{-} \frac{+}{+}$ $m = (-1, 2)$ 7

$P < 0$

$\Delta > 0$ $m-2 < 0 \rightarrow m < 2$ 8

$$\textcircled{1} \cap \textcircled{2} = [-1, 2)$$

9
10
11
12

الف) $a < 0 \rightarrow m < 2$ ①

① $\cap$ ② $= (-\infty, 2)$

⑤

$\Delta > 0 \rightarrow$ مميزان مختلفان

$(2m+2)^2 - 4(m-2)(1.1) > 0 \rightarrow \underbrace{4m^2 - 4m + 21}_{\Delta < 0} > 0 \rightarrow +\infty$

②

$\Delta < 0$

⑥

ب) $-2 = \frac{2m+2}{2m-2}$

$-2m + 4 = 2m + 2$

$-4m = -2 \rightarrow \boxed{m = 1/2}$

Genobar



$$\sin^2 \alpha \geq 1 \rightarrow \sin \alpha = \pm 1 \rightarrow \sin \alpha = 1$$

(a) ~~scribble~~

$$\Delta \geq 0 \quad \frac{r}{c} z^2 - rz + \frac{c}{r} = 0$$

(5)

$$z^2 - rz + 9 = 0 \rightarrow (rz - c)^2 = 0 \rightarrow rz = c \rightarrow z = \frac{c}{r}$$

$$\frac{r_2^r - r_2 - 1}{r_2^r + \epsilon_2} \mid \frac{r_2 - 1}{r_2 + 1} \quad \frac{r_2^r - r_2 - \Delta}{r_2 + r_2} \mid \frac{r_2 + 1}{r_2 - \Delta} \quad (4)$$

$$\frac{r_2 - 1}{r_2 + 1} \quad \frac{-\Delta r_2 - \Delta}{\Delta r_2 + \Delta} \quad (5)$$

$$y = \frac{(r_2^r - r_2 - 1)(r_2^r - r_2 - \Delta)}{1 - r_2^r} = \frac{(r_2 - 1)(r_2 + 1)(r_2 + 1)(r_2 - \Delta)}{(r_2 - 1)(r_2 + 1)}$$

$$= (r_2 + 1)(r_2 - \Delta) = 4r_2^r - 1r_2 - \Delta$$

$$y_5 = \frac{-\Delta}{\epsilon a} = \frac{149 - \epsilon(-c.)}{r\epsilon} = \boxed{\frac{219}{r\epsilon}}$$

$$rS = \Delta p + V \quad r\left(\frac{m+r}{m}\right) = \Delta\left(\frac{-r}{m}\right) + V \quad (6)$$

$$\frac{r_m + \epsilon}{m} = \frac{-1. + V_m}{m} \rightarrow r_m + \epsilon = -1. + V_m \rightarrow m = \epsilon$$

$$\epsilon r^r - 4r - r = 0 \rightarrow S = \frac{\epsilon}{\epsilon} = \frac{r}{r} \quad p = \frac{-r}{\epsilon} = \frac{-1}{r} \quad (7)$$

$$\alpha^r + \beta^r = S^r - rP = \left(\frac{r}{r}\right)^r - r\left(\frac{-1}{r}\right) = \boxed{\frac{13}{\epsilon}}$$

$$\frac{\epsilon \alpha}{\alpha \beta^r} + \frac{\beta^r}{\alpha} \Rightarrow \frac{\epsilon \alpha}{\frac{r.}{\alpha^r}} + \frac{\beta^r}{\alpha} = \frac{\alpha^r}{\alpha} + \frac{\beta^r}{\alpha} \quad (8)$$

$$\Rightarrow \frac{1}{\alpha} (\alpha^r + \beta^r) = \frac{1}{\alpha} (S^r - rSP) = \frac{1}{\alpha} (12\alpha - c.) = (19) \quad \left\{ \begin{array}{l} S = \Delta \\ P = r \\ \beta = \frac{r}{\alpha} \\ \alpha \beta^r = \frac{r.}{\alpha^r} \end{array} \right. \quad (9)$$



$$y_1 = 1x + 10 \xrightarrow{x=1} y_1 = 11$$

$$y_1 = ax^2 + bx + c \xrightarrow{x=-1} y_1 = 5$$

$$\begin{cases} 2a + 1b = 10 \\ 4a - 1b = 0 \end{cases} \rightarrow ca = b$$

$$4a - 1b = 0 \rightarrow ca = b$$

$$2a + 4a = 10 \rightarrow a = 1, b = 6$$

$$x^2 + 1x + 10 \rightarrow x_5 = \frac{-b}{2a} = \frac{-1}{2}$$

$$1x^2 + (m+1)x + m + 4 = 0$$

$$1m^2 + m + 4 = 0$$

$$\Delta = m^2 - 4(1)(m+4) = m^2 - 4m - 16 = 0$$

$$\rightarrow (m-12)(m+4) = 0$$

$$m = 12 \times$$

$$m = -4$$