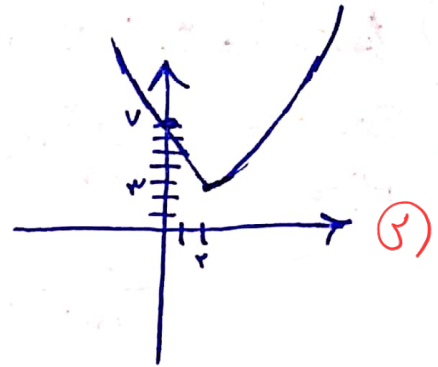


بهار نیا (کلیف ۱۲ / باز هم دفتران ۱۰) (۱)

الف) $\text{ext} \left| \begin{array}{c} -\frac{b}{2a} = \frac{2}{2} = 1 \\ 3 \end{array} \right.$

$$J = x^2 - 2x + 3$$

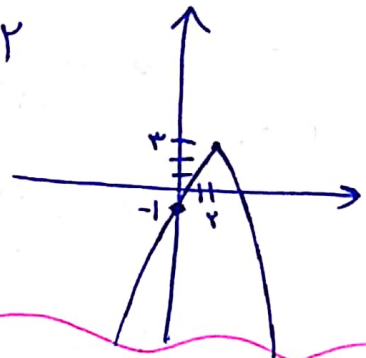
$$\Delta < 0$$



ب) $y = -x^2 + 2x - 1$

$$\begin{array}{c|cc} x & 0 & 2 \\ \hline y & -1 & 3 \end{array}$$

$$\text{ext} \left| \begin{array}{c} -\frac{b}{2a} = \frac{-2}{-2} = 1 \\ 3 \end{array} \right.$$



$$2x^2 + (m+1)x + \frac{1}{2}m + 2 > 0$$

مقادیر m (۲)

الف) $\Delta > 0 \rightarrow (m+1)^2 - (2 \times (\frac{1}{2}m + 2) \times 2) > 0 \rightarrow m^2 + 1 + 2m - 2m - 4 > 0$

$$m^2 - 2m - 1 > 0 \rightarrow (m-3)(m+1) > 0 \rightarrow \begin{array}{c} -3 \quad 1 \\ + \quad - \quad - \quad + \end{array}$$

$$\rightarrow m \in (-\infty, -1) \cup (3, +\infty)$$

ب) $\Delta < 0 \rightarrow m^2 - 2m - 1 < 0 \rightarrow \begin{array}{c} m < 3 \\ m > -1 \end{array}$

ج) $\Delta < 0 \rightarrow m^2 - 2m - 1 < 0 \rightarrow (m-3)(m+1) < 0 \rightarrow \begin{array}{c} -3 \quad 1 \\ + \quad - \quad - \quad + \\ m \in (-1, 3) \end{array}$

د) $\Delta \geq 0 \rightarrow (m-3)(m+1) \geq 0 \rightarrow \begin{array}{c} -3 \quad 1 \\ + \quad - \quad - \quad + \\ m \in (-\infty, -1] \cup [3, +\infty) \end{array}$

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

(3)

الف) $\Delta > 0 \rightarrow 4m^2 - 4(m+1) > 0 \rightarrow$ رتای/بیشتری است

$$\left. \begin{array}{l} S < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow \frac{-1}{+\frac{1}{2}-\frac{1}{2}+} \Rightarrow (-1, 2) \\ P > 0 \rightarrow \frac{1}{m-2} > 0 \rightarrow \frac{2}{-\frac{1}{2}+} \Rightarrow (2, +\infty) \end{array} \right\} \Rightarrow \emptyset$$

(1)

(5)

ب) $\Delta > 0 \rightarrow$ همیشه درست

$$\left. \begin{array}{l} S < 0 \rightarrow \frac{1}{m-2} < 0 \rightarrow \frac{2}{-\frac{1}{2}+} \sim (-\infty, 2) \\ P < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow \frac{-1}{+\frac{1}{2}-\frac{1}{2}+} \sim (-1, 2) \end{array} \right\} \Rightarrow (-1, 2)$$

(1)

$(-1, 2)$

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

(4)

الف) $\Delta > 0 \rightarrow \checkmark$

Max $\left\{ \begin{array}{l} m < 2 \rightarrow m < 2 \\ P < 0 \rightarrow \frac{1}{m-2} < 0 \rightarrow \frac{2}{-\frac{1}{2}+} \end{array} \right. (-\infty, 2)$

$(-\infty, 2)$

min $\left\{ \begin{array}{l} m-2 > 0 \rightarrow m > 2 \\ \Delta > 0 \rightarrow \checkmark \\ P < 0 \rightarrow \frac{1}{m-2} < 0 \rightarrow \frac{2}{-\frac{1}{2}+} \end{array} \right. (-\infty, 2)$

$(-\infty, 2)$

$(-\infty, 2)$

ب) $-\frac{b}{2a} - 2 \rightarrow \frac{2m+2}{2m-2} = -2 \rightarrow 2m+2 = -4m+4 \rightarrow 6m=2 \rightarrow m=\frac{1}{3}$

$$\frac{r x^r}{r} - (r \sin \alpha) x + \frac{r}{r} = 0$$

(2)

$$\Delta \rightarrow r \sin^2 \alpha - \frac{r}{r} x + \frac{r}{r} = 0 \Rightarrow \sin^2 \alpha \geq 1 \rightarrow \sin^2 \alpha \leq 1$$

(5)

$$\sin \alpha = \pm 1 \rightarrow \frac{r}{r} x^2 - r x + \frac{r}{r} = 0 \rightarrow x^2 - 12x + 9 = 0$$

$$\rightarrow \frac{r}{r} x^2 + r x + \frac{r}{r} = 0 \rightarrow x = -12/100 \pm \dots$$

$$x^2 - 12x + 9 = 0 \rightarrow (x-4)(x-9) = 0 \rightarrow x = \frac{r}{r}$$

$$\frac{(x^2 - 12x + 9)(x^2 - 12x + 9)}{1 - x^2} = - \frac{r x^2 - 12 r x + 9 r}{(x-1)(x+1)} \rightarrow x \neq \pm 1$$

(6)

$$r x^2 - 12 r x + 9 r \mid x^2 - 1$$

(5)

$$y = -r x^2 + 12 r x + 9 r \rightarrow x = \frac{-b}{2a} = \frac{-12r}{-2r} = \frac{12r}{2r} \rightarrow y = \frac{r \cdot 144}{r}$$

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

$$r(\alpha + \beta) = a(\alpha + \beta) + V \rightarrow \frac{r(m+1)}{m} = \frac{-1}{m} + V \rightarrow \frac{r(m+1)}{m} = V$$

(7)

$$r(m+1) - Vm = 0 \rightarrow r(m+1) = Vm \rightarrow m \leq r$$

$$\rho = \frac{r}{m} = \frac{1}{r}$$

$$\rho = \frac{m+r}{m} = \frac{r}{r}$$

$$r x^2 - r x - r = 0$$

$$\rightarrow x^2 + \beta^2 = s^2 - r \rho$$

$$= \frac{r}{r} + \frac{r}{r} = \frac{1}{r}$$

$$x^r - \omega x + r s_0$$

$$\frac{r\alpha}{\omega \beta^r} + \frac{\beta^r}{\omega} = 2$$

①

$$\alpha \beta s r \rightarrow \beta s \frac{r}{\alpha}$$

$$\alpha + \beta s \omega$$

$$\frac{r\alpha}{\omega \times \frac{r}{\alpha}} = \frac{\alpha^r}{\omega} \Rightarrow \frac{\alpha^r + \beta^r}{\omega} = \frac{s^r - r s \rho}{\omega} = \frac{12\omega - r_0}{\omega} = 19$$

5

$$y_1 = ax^r + bx + c$$

$$y_r = rx + 1_0$$

$$\left. \begin{matrix} y_1 = ax^r + bx + c \\ y_r = rx + 1_0 \end{matrix} \right\} \rightarrow \begin{matrix} y_r s r x^r + b s \varepsilon \\ y_1 = r a + r b + \varepsilon \rightarrow 1^r = r a + r b + r \end{matrix} \quad \begin{pmatrix} r \\ 0 \end{pmatrix} \begin{pmatrix} -r \\ 0 \end{pmatrix} \begin{pmatrix} 0 \\ r \end{pmatrix} \textcircled{7}$$

$$1_0 = r(r a + b) \Rightarrow r a + b s \omega \textcircled{I}$$

5

$$\left. \begin{matrix} y_1 = 9a - r b + \varepsilon \\ y_r = -r + 1_0 + r \end{matrix} \right\}$$

$$\rightarrow 9a - r b s_0 \rightarrow r(r a - b) s_0 \rightarrow r a - b s_0 \textcircled{II}$$

$$\textcircled{I}, \textcircled{II} \Rightarrow \begin{cases} r a + b s \omega \\ r a - b s_0 \end{cases}$$

$$\omega a = \omega \rightarrow a s 1, b s r$$

$$y_1 = a^r + r a + \varepsilon \rightarrow a s - \frac{b}{r a} s - \frac{r}{r}$$

$$y = r a^r + (m+1)x + m + r \quad \text{نیم سازه اول به سمت} \rightarrow a s y$$

10

$$r a^r + (m+1)x + m + r s x$$

$$r a^r + (m)x + m + r s_0$$

$$\Delta <_0 \rightarrow m^r - 1m - r 1 <_0$$

$$\checkmark a > 0 \rightarrow \text{مستقیماً}$$

$$\begin{matrix} (m+2) \\ -2 \end{matrix} \begin{matrix} (m-12) \\ 12 \end{matrix} <_0$$

$$\text{if } m s 12 \rightarrow y = r a^r + 1^r x + 11 \rightarrow \Delta >_0$$

$$\text{if } m s -2 \rightarrow y = r a^r - r x + r \rightarrow \Delta <_0 \rightarrow \boxed{m s -r} \text{ جواب}$$