

بزرگم (ممتاز) C

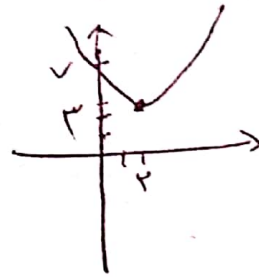
(1)

الف) $x^2 - 8x + 17$

$\Delta < 0$

$$\begin{array}{c|cc} x & 0 & 2 \\ y & 17 & 1 \end{array}$$

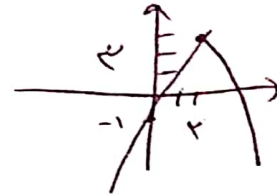
 $\rightarrow \Delta < 0 \rightarrow \begin{cases} -\frac{b}{2a} = 4 \\ \frac{4ac - b^2}{4a} = 1 \end{cases}$



ب) $y = -x^2 + 8x - 1$

$$\begin{array}{c|cc} x & 0 & 2 \\ y & -1 & 7 \end{array}$$

$\Delta > 0$



مقدار m

(2)

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

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

$m^2 + 1 + 2m - 4m - 4 > 0$

$m^2 - 2m - 3 > 0 \rightarrow (m-3)(m+1) > 0$

$$\frac{-3 \quad 0}{+ \quad - \quad - \quad +}$$

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

ب) $\Delta = 0 \rightarrow m^2 - 2m - 3 = 0 \rightarrow m = 3$
 $\rightarrow m = -1$

ج) $\Delta < 0 \rightarrow m^2 - 2m - 3 < 0 \rightarrow (m-3)(m+1) < 0$

$$\frac{-3 \quad 0}{+ \quad - \quad - \quad +}$$

$m \in (-1, 3)$

د) $\Delta \geq 0 \rightarrow (m-3)(m+1) \geq 0 \rightarrow m \in (-\infty, -1] \cup [3, +\infty)$

الف) $y = (m-2)x^2 - 2(m+1)x + 1$

(3)

$\Delta > 0 \rightarrow 4m^2 - 4m + 4 > 0$

$\Delta < 0 \rightarrow \frac{4m+2}{m-2} < 0$

$\Delta > 0 \rightarrow \frac{1}{m-2} > 0$

$$\frac{-1 \quad 2}{+ \quad - \quad - \quad +}$$

$(-1, 2)$

$$\frac{2}{- \quad + \quad - \quad +}$$

$(2, +\infty)$

(٣.١)

ب) $\Delta > 0 \rightarrow \checkmark$ حلال

$$\begin{aligned} S < 0 & \quad \frac{10}{m-2} < 0 & \quad \frac{2}{-\frac{1}{3}4} & \quad (-\infty, 2) \\ P < 0 & \quad \frac{2m+2}{m-2} < 0 & \quad \frac{-12}{+\frac{1}{3}4} \rightarrow (1, 2) \end{aligned} \quad \bigcap \quad (-1, 2)$$

(٤)

$$y = (m-2)x^2 - 4(m+1)x + 10$$

$$\text{الف) } \max \left\{ \begin{aligned} \Delta &> 0 \quad \checkmark \\ m-2 &< 0 \quad m < 2 \\ P &< 0 \quad \frac{10}{m-2} < 0 \end{aligned} \right. \quad \frac{2}{-\frac{1}{3}4} \quad (-\infty, 2) \quad \bigcap \quad (-\infty, 2)$$

$$\min \left\{ \begin{aligned} m-2 &> 0 \quad m > 2 \\ \Delta &> 0 \\ P &< 0 \quad \frac{10}{m-2} < 0 \end{aligned} \right. \quad \frac{2}{-\frac{1}{3}4} \quad (-\infty, 2) \quad \Rightarrow \emptyset$$

$$\text{عقبة} \quad \min \cup \max \rightarrow (-\infty, 2)$$

$$\text{ب) } \frac{-b}{2a} = -2 \quad \frac{2m+2}{2m-4} = -2 \rightarrow 2m+2 = -4m+8 \rightarrow m=1$$

(٥)

$$\frac{2m^2}{4} - (2 \sin \alpha)x + \frac{m}{4} \geq 0 \quad \Delta \geq 0 \rightarrow 4 \sin^2 \alpha - \frac{2}{4} \geq 0$$

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

$$\begin{aligned} \text{عقبة} \quad \frac{2}{4} x^2 - 2x + \frac{m}{4} &= 0 \rightarrow m = -12 \\ \frac{2}{4} x^2 - 2x + \frac{m}{4} &\leq 0 \rightarrow m = 12 \end{aligned}$$

$$x^2 - 4x + 3 \geq 0$$

$$(x-1)(x-3) \rightarrow x \leq \frac{1}{2}$$

$$\frac{(r^n - rn - 1)(rn^r - rn - 2)}{1 - n^r} \rightarrow \frac{rn^r - 1rn^r - 1rn^r + 1rn^r + 2}{(n-1)(na)}$$

$$n \neq \pm 1 \quad 4n^r - 1rn^r - 1rn^r + 1rn^r + 2 \mid n^r - 1$$

$$y = -4n^r + 1rn^r + 2 \rightarrow n = \frac{-b}{r_a} = \frac{1r}{r} \quad y = \frac{419}{4r}$$

$$m n^r - (m+r)n - r = 0$$

$$D = \frac{-1}{r} \quad S = \frac{r}{r}$$

$$r(\alpha \beta) = 0 \quad (\alpha \beta) = V \rightarrow \frac{rm+r}{m} = \frac{-1}{m} + V$$

$$\frac{m+r}{m} = \frac{-1}{m} + V \rightarrow \frac{rm+r}{m} = V$$

$$r n^r - 4n - r = 0$$

$$m = r$$

$$rm + r - Vm = 0$$

$$\rightarrow \alpha^r + \beta^r \rightarrow s^r - r\rho \rightarrow \frac{r}{r} + \frac{r}{r} = \frac{1r}{r}$$

$$n^r - 0n + r = 1$$

$$\frac{r\alpha^r}{\delta\beta^r} = \frac{\beta^r}{\Delta} = 0$$

$$\alpha\beta = r \rightarrow \beta = \frac{r}{\alpha} \left\{ \alpha + \beta = 0 \rightarrow \frac{r\alpha}{\Delta + \frac{r}{\alpha}} = \frac{\alpha^r}{\Delta} \rightarrow \frac{\alpha^r + \beta^r}{\Delta} = \frac{1r - r}{\Delta} \right.$$

$$\begin{cases} y_1 = am^r + bm + c \\ y_2 = rm + 1 \end{cases}$$

$$y_1 = 2x^2 + 1 \quad 21r$$

$$y_1 = 8a + 4b + c \rightarrow 8 = 8a + 4b + c$$

$$10 = r(r+a+b) \rightarrow ra+b=0 \quad (1)$$

$$\begin{cases} y_1 = 9a - 3b + c \\ y_2 = -4a + 10 = c \end{cases} \rightarrow 9a - 3b = 10$$

$$(1), (2) \rightarrow \begin{cases} ra+b=0 \\ ra-b=0 \\ \frac{ra-b=0}{\delta a=0} \rightarrow a=1 \quad b=1 \end{cases}$$

$$y = n^r + 3n + 8 \rightarrow n = \frac{-b}{ra} = \frac{-r}{r}$$

$$y = r_n + (m+1) \rightarrow r_n + (m+1) = r_{n+m+1} \quad \text{--- (1.)}$$

$$P_{\mathcal{H}^r} f(m) \text{ a.e. } m \rightarrow a > 0 \quad \Delta < 0 \rightarrow m^r - \lambda m - \varepsilon \lambda < 0.$$

i) $f_M = K$ $g = P \alpha^T + 1^T x \in K \rightarrow \Delta > 0$.

$$(m+6)(m-14)$$

$\lim_{n \rightarrow \infty} x_n = 0 \rightarrow y_2 = 2x^2 - 4x + 4 < 0 \rightarrow$ $x_2 = -\frac{1}{2}$ جواب.