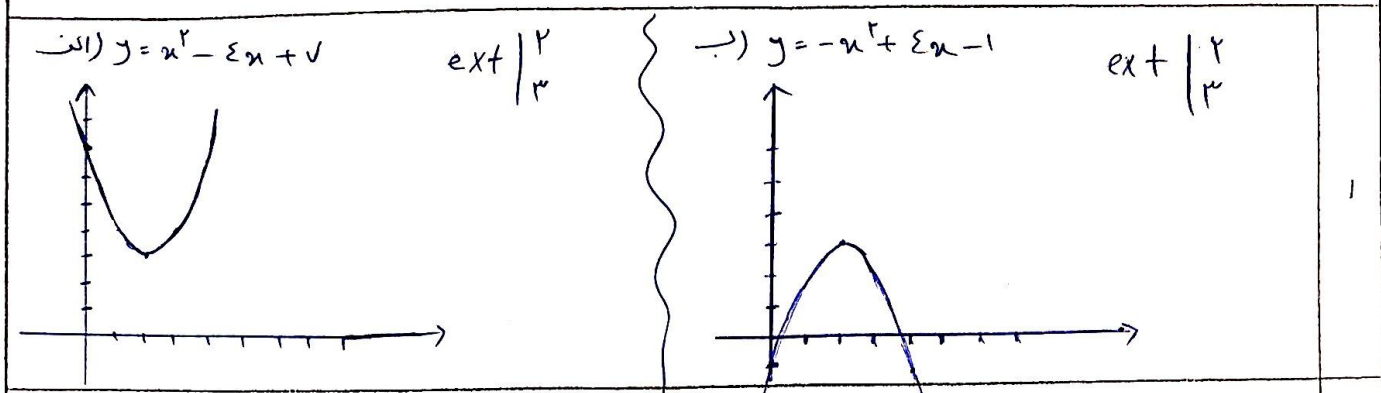




$2x^2 + (m+1)x + \frac{1}{2}m + 2 = 0$ $\Delta > 0 \rightarrow (m+1)^2 - 4 \cdot \frac{1}{2}m - 16 > 0 \rightarrow m^2 - 2m - 18 > 0$ $\Delta < 0 \rightarrow m \in (-2, 5)$ (ع) $\Delta \geq 0 \rightarrow m \in (-\infty, -2] \cup [5, +\infty)$ (د)	الف) $m \in (-\infty, -2) \cup (5, +\infty)$ $\frac{-2}{+} \frac{5}{-}$ $\Delta = 0 \rightarrow \begin{cases} m = -2 \\ m = 5 \end{cases}$
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الف) $y = (m-2)x^2 - 2(m+1)x + 1$ $\Delta > 0 \rightarrow 4(m+1)^2 - 4(m-2) > 0 \rightarrow 4m^2 - 4m + 16 > 0$

$\rightarrow m^2 - m + 4 > 0 \rightarrow \text{همیشه مثبت}$ (د)

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

$P > 0 \rightarrow \frac{1}{m-2} > 0 \rightarrow m > 2$ (ج) $\rightarrow \text{همه موارد}$

$\Delta > 0 \checkmark$

$P < 0 \rightarrow m < 2$ $S < 0 \rightarrow -1 < m < 2 \rightarrow -1 < m < 2$ (ب)

الف) $\Delta > 0 \checkmark$ $P < 0 \rightarrow m < 2 \rightarrow m < 2$

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

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

$\rightarrow \sin^2 \alpha \geq 1 \rightarrow \sin \alpha = \pm 1 \rightarrow \alpha \in \left\{ k\pi + \frac{\pi}{2} \right\}$

$\begin{cases} \sin \alpha = 1 \rightarrow \frac{r}{2}x^2 - rx + \frac{r}{2} = 0 \rightarrow x = \frac{r}{r} \checkmark \\ \sin \alpha = -1 \rightarrow \frac{r}{2}x^2 + rx + \frac{r}{2} = 0 \rightarrow x = -\frac{r}{r} \end{cases}$

$$y = \frac{(r_n^r - r_n - 1)(r_n^r - r_n - \delta)}{1 - n^r} = \frac{r(n-1)(n+\frac{1}{r})(n+1)(n-r\delta) \times r}{(1-n)(1+n)}$$

$$= -r(n+\frac{1}{r})(n-r\delta) \times r = (-r_n - 1)(r_n - \delta) = -r_n^r + 1r_n + \delta$$

$$\rightarrow y_{\max} = \frac{-\Delta}{\Sigma a} = \frac{-(1r^r + 1r_0)}{-r\Sigma} = \frac{r \wedge 9}{r\Sigma}$$

$$m n^r - (m+r)n - r = 0 \rightarrow rS = \delta P + V \rightarrow r \frac{m+r}{m} = -\frac{1}{m} + V$$

$$\rightarrow r m + r = V m - 1 \rightarrow 14 = \Sigma m \rightarrow m = \Sigma \rightarrow \alpha^r + \beta^r = S^r - r\rho$$

$$S = \frac{4}{\Sigma} = 1.8 \quad P = -\frac{1}{r} = -.18 \rightarrow S^r - r\rho = r, 18 + 1 = C, 18$$

$$n^r - \delta n + r = 0 \rightarrow \frac{\Sigma \alpha + \beta^r}{\partial \beta^r} \xrightarrow[\beta = \frac{r}{\alpha} \rightarrow \beta^r = \frac{\Sigma}{\alpha^r}]{\alpha \beta = r \text{ ثابت}}$$

$$\frac{\Sigma \alpha}{\partial \beta^r} + \frac{\beta^r}{\alpha}$$

$$= \frac{\Sigma \alpha}{\partial \frac{\Sigma}{\alpha^r}} + \frac{\beta^r}{\alpha} = \frac{\alpha^r}{\alpha} + \frac{\beta^r}{\alpha} = \frac{S^r - r\rho}{\alpha} = \frac{1.8 - r}{\alpha} = \frac{9\Delta}{\alpha} = 19$$

$$y_i = a n^r + b n + r \quad y_r = r n + 1 \rightarrow a n^r + b n + r = r n + 1$$

$$a n^r + (b-r)n - r = 0$$

$$\rightarrow \begin{cases} n=r \rightarrow \Sigma a + r b - 1 = 0 \\ n=-r \rightarrow a a - r b = 0 \end{cases} \rightarrow \begin{cases} r a + b = \delta \\ r a - b = 0 \end{cases} \rightarrow \delta a = \delta \rightarrow \begin{cases} a=1 \\ b=r \end{cases}$$

$$\rightarrow y_i = n^r + r n + \Sigma \rightarrow n = \frac{-b}{\min r a} = \frac{-r}{r} \rightarrow n = -\frac{r}{r}$$

$$y = r n^r + (m+1)n + m + r \rightarrow r n^r + (m+1)n + m + r = n$$

$$\rightarrow r n^r + m n + m + r = 0 \rightarrow \Delta = 0 \rightarrow m^r - \Lambda m - \Sigma \Lambda = 0$$

$$\rightarrow \begin{cases} m = -\Sigma \rightarrow r n^r - \Sigma n + r = 0 \rightarrow n = 1 \checkmark \\ m = 1r \rightarrow r n^r + 1r n + 1\Lambda = 0 \rightarrow n = -r \times \end{cases} \rightarrow m = -\Sigma$$

n > 0. جواب