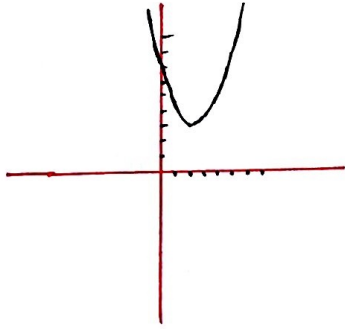
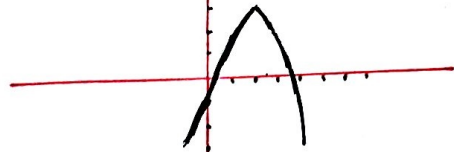


الف)



ب)



الف) $\Delta > 0$. $(m+1)^2 - 4\left(\frac{1}{m} + 2\right) = m^2 - 2m - 1 > 0$. $\frac{-2}{1} < m < \frac{1}{-1} + 1$. $(-\infty, -3) \cup (0, +\infty)$

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

ج) $\Delta < 0$. $m^2 - 2m - 1 < 0$. $\frac{-2}{1} < m < \frac{1}{-1} + 1$. $(-3, 0)$

د) $\Delta \geq 0$. $m^2 - 2m - 1 \geq 0$.

$\frac{-2}{1} < m < \frac{1}{-1} + 1$. $(-\infty, -3] \cup [0, +\infty)$

الف) $\alpha < 0, \beta < 0$.

$S < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow m \in (-2, 2)$

$P > 0 \rightarrow \frac{1}{m-2} > 0 \rightarrow m \in (2, +\infty)$

$\Delta > 0 \rightarrow$ هواره برقرار

$\Rightarrow m = \emptyset$

ب) $\alpha < 0, \beta > 0$

$|\alpha| > \beta$

$P < 0 \rightarrow \frac{1}{m-2} < 0$. $m < 2$

$S < 0 \rightarrow \frac{2m+2}{m-2} < 0$. $-1 < m < 2$

$\Delta > 0 \rightarrow$ اشتراک: $-1 < m < 2$

الف) $\Delta > 0$. $(-2m-2)^2 - 4(m-2)(1) > 0 \rightarrow 4^2 - 4m + 8 > 0$. $m < 4$. $m \in \mathbb{R}$

$P < 0$. $\frac{1}{m-2} > 0 \Rightarrow m < 2$. اشتراک: $m < 2$

ب) $m = -2$. $-\frac{b}{a} = -2$. $\frac{2m+2}{2(m-2)} = -2 \Rightarrow m = 1$

فرض سوال: $\Delta \geq 0$. $(-2\sin\alpha)^2 - 4\left(\frac{r}{r}\right)\left(\frac{r}{r}\right) \geq 0 \Rightarrow \alpha \in \left[\frac{\pi}{2}, \frac{3\pi}{2}\right] + \frac{\pi}{2}$. $\alpha = 90^\circ$. $\alpha = 270^\circ$.

$\frac{r}{r}r^2 - 2(\sin 90^\circ)r + \frac{r}{r} = 0 \rightarrow \frac{r}{r}r^2 - 2r + \frac{r}{r} = 0 \Rightarrow r = \frac{r}{r} \rightarrow \checkmark$

$\frac{r}{r}r^2 - 2(\sin 270^\circ)r + \frac{r}{r} = 0 \rightarrow \frac{r}{r}r^2 + 2r + \frac{r}{r} = 0 \Rightarrow r = -\frac{r}{r} \rightarrow \text{غلط}$

$$\frac{(r_{n+1})^{-1}(\cancel{r_n-1})(\cancel{r_n+1})(r_n-0)}{(1-\cancel{r_n})(1+\cancel{r_n})} = -r_n^r + 1r_n + 0$$

$$Y_{max} = -\frac{\Delta}{b} = -\frac{149+1r_0}{-1r^r} = \frac{149}{1r^r} \approx 12$$

$$rS = \omega P + V \Rightarrow \frac{r_m + 9}{m} = \frac{-10}{m} + V \Rightarrow m = r \Rightarrow S = \frac{r}{r}, P = -\frac{1}{r}$$

$$\alpha^r + \beta^r = S^r - rP = \frac{9}{r} + 1 = \frac{13}{r}$$

$$P = r = \alpha \cdot \beta \Rightarrow \beta = \frac{r}{\alpha} \Rightarrow \beta^r = \frac{r^r}{\alpha^r} \quad S = \omega$$

$$\frac{r\alpha + \beta^{\omega}}{\beta^r} = \frac{r\alpha}{\beta^r} + \frac{\beta^{\omega}}{\omega} = \frac{r\alpha}{\frac{r}{\alpha^r}} + \frac{\beta^r}{\omega}, \quad \frac{\alpha^r + \beta^r}{\omega}, \quad \frac{S^r - rSP}{\omega} \quad 19$$

نقاط مشترک: $\begin{bmatrix} -3 \\ r \end{bmatrix} \begin{bmatrix} r \\ 1r \end{bmatrix} \begin{bmatrix} 0 \\ r \end{bmatrix} \rightarrow$ فرض $\Rightarrow C=r \rightarrow y_1 = a r^r + b r + r$
از مبدأ y_1

$$\begin{cases} 9a - 3b = 0 \\ ra + rb = 10 \end{cases} \Rightarrow \begin{matrix} a=1 \\ b=r \end{matrix} \quad \text{معوضه } y_2: -\frac{b}{a} = -\frac{r}{r}$$

$$\begin{bmatrix} \alpha \\ \alpha \end{bmatrix} \quad \alpha = r\alpha^r + (m+1)\alpha + m+9 = r\alpha^r + m\alpha + m+9 \quad \Delta=0 \quad \leftarrow \text{جواب}$$

$$\alpha > 0 \quad m^r - r(r)(+9) = m^r - 18m - 18 = 0 \quad \begin{matrix} m = -r \\ m = 12 \end{matrix}$$

$$m = -r \rightarrow r\alpha^r - 3\alpha + r \xrightarrow{y=\alpha} \alpha = r\alpha^r - 3\alpha + r \Rightarrow \alpha = 1 \Rightarrow m = -r$$

$$m = 12 \rightarrow r\alpha^r + 13\alpha + 11 \xrightarrow{y=\alpha} \alpha = r\alpha^r + 13\alpha + 11 \Rightarrow \alpha = -r \quad \text{جواب}$$