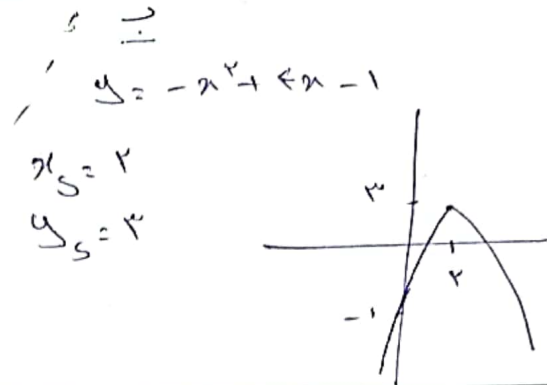
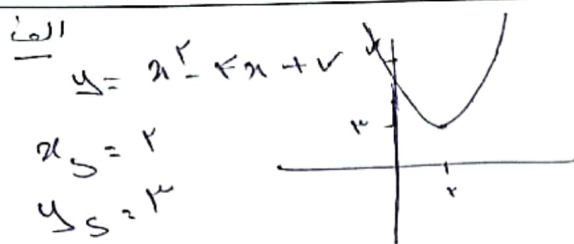




الف) $\Delta > 0 \rightarrow m^2 + 1 - 4m - 4m - 14 > 0 \rightarrow (m-1)^2 > 14$

ب) $\Delta = 0 \rightarrow (m-1)^2 = 14 \quad m-1 = \pm \sqrt{14} \quad m = 1 \pm \sqrt{14}$

ج) $\Delta < 0 \rightarrow (m-1)^2 < 14 \quad m < 1 + \sqrt{14}$

د) $\Delta \geq 0 \rightarrow (m-1)^2 \geq 14 \quad m-1 \geq \sqrt{14} \quad m \geq 1 + \sqrt{14}$

الف) ① $\Delta > 0$
② $\frac{c}{a} > 0$ ③ $-\frac{b}{a} < 0$

① $1 - (m-4) + 4 > 0 \rightarrow m > -\sqrt{5}$

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

③ $4m + 2 < 0 \rightarrow m < -1$

ب) ① $\Delta > 0$
② $\frac{c}{a} < 0$ ③ $-\frac{b}{a} < 0$

① $1 \rightarrow m > -\sqrt{5}$

② $1 \rightarrow m < 2$

③ $2m + 2 < 0 \rightarrow m < -1$

الف) ① $\Delta > 0$ ② $\frac{c}{a} < 0$

$m > -\sqrt{5}$ $m < 2$

$1 \cap 2 \rightarrow (-\sqrt{5}, 2)$

ب) $x_5 = -2 = -\frac{b}{2a}$

$\frac{(x_5)m+1}{x_5m-4} = -2$

$-2m + 4 = m + 1 \quad m = 1$

~~$\Delta = 0$~~ $\Delta = 0 \rightarrow f \sin^2 \alpha - f \left(\frac{f}{c} \right) \left(\frac{f}{r} \right) = 0$
 $-\frac{b}{a} > 0 \quad \sin^2 \alpha = 1$

$\frac{f \sin \alpha}{\frac{f}{r}} > 0 \rightarrow \sin \alpha > 0 \rightarrow \sin \alpha = 1$

$x = \frac{f}{r} = 2$

$y = \frac{(x^r - x^{r-1})(x^r - x - 0)}{1 - x^r} = 0$ $\frac{(x(\frac{0}{r})^r - x(\frac{0}{r}) - 1)(x(\frac{0}{r})^r - x(\frac{0}{r}) - 0)}{1 - (\frac{0}{r})^r} = 0$	6
— $v(\alpha + \beta) = \omega(\alpha \times \beta) + v$ $\beta^r + \alpha^r \rightarrow (\alpha + \beta)^r - v(\alpha \times \beta)(\alpha + \beta) = ? \quad (1)^r - v(-\frac{r}{r})$ $v(\frac{m+r}{m}) = \omega(-\frac{r}{m}) + v$ $\frac{r(m+4)-1}{m} = v \rightarrow rm + 4 = vm$ $\frac{r}{r} + \frac{4}{r} = \frac{13}{r}$ $m = r \rightarrow \alpha \times \beta = -\frac{1}{r}$ $\rightarrow \alpha + \beta = \frac{r}{r}$	7
$\alpha \times \beta = r$ $\alpha + \beta = a$ $\frac{1}{a\beta^r} + \frac{\beta^r}{a}$ $\frac{1}{a\beta^r} + \frac{\beta^r}{a}$	8
$r(x) + 1 = fa + rb + f$ $r(2a + b) = 1 \rightarrow 2a + b = a$ $-4 + \frac{f}{x} = 4a - rb + f \rightarrow 2a + b = 0$ $y = 2x^r + rx + f$ $x_0 = -\frac{r}{r}$ $\begin{cases} ra - b = 0 \\ ra + b = a \\ \hline \omega a = a \\ b = r \quad a = 1 \end{cases}$	9
ازای هر x, y برابر $\Rightarrow y = +x$ $x = 1$ ازای $\rightarrow 1 = \frac{r + m + 1 + m + 4}{rm + 4} \rightarrow rm + 4 = 0$ $m = -4$	10