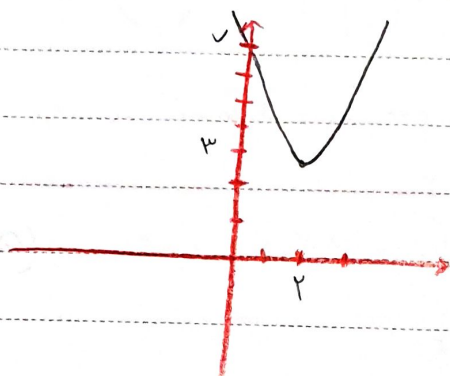
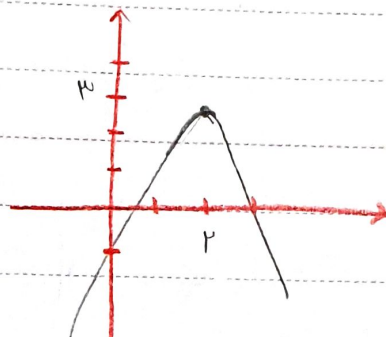


الف) $\text{ext} \left| \begin{array}{l} -\frac{b}{2a} = 2 \\ f-1+1=3 \end{array} \right. , \Delta < .$



ب) $\text{ext} \left| \begin{array}{l} -\frac{b}{2a} = 2 \\ -f+1-1=3 \end{array} \right. , \Delta > .$ (1)



الف) $2m^2 + (m+1)a + \frac{1}{2}m + 2 = 0 \xrightarrow{\Delta > 0} (m+1)^2 - 1(\frac{m}{2} + 2) > 0$ (2)

$m^2 + 1 + 2m - (\frac{m}{2} + 2) > 0 \Rightarrow m^2 - 2m - 1 > 0 \Rightarrow (m-a)(m+3) > 0$

$\frac{-3}{-} \quad \frac{a}{+} \Rightarrow m \in (-\infty, -3) \cup (a, +\infty)$

ب) $\Delta = 0 \Rightarrow \frac{-3}{-} \quad \frac{a}{+} \Rightarrow m \in \{-3, a\}$

ج) $\Delta < 0 \Rightarrow m \in (-3, a)$

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

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

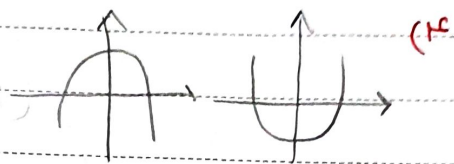
$\rightarrow f(m^2 - 3m + 1) > 0 \xrightarrow{\Delta < 0} \text{هواره} \oplus \text{ و } \frac{c}{a} > 0 \rightarrow \frac{1}{m-2} > 0 \rightarrow m > 2$

$-\frac{b}{a} < 0 \rightarrow \frac{2m+2}{m-2} < 0 \xrightarrow{+ \quad - \quad +} -1 < m < 2 \xrightarrow{\oplus \quad \oplus \quad \oplus} \emptyset$

ب) $\Delta > 0 \rightarrow \text{هواره} \oplus \text{ و } \frac{c}{a} < 0 \Rightarrow m < 2$

$-\frac{b}{a} < 0 \rightarrow -1 < m < 2 \rightarrow m \in (-1, 2)$

الف) $\Delta > 0 \rightarrow$ دو جواب و $\frac{c}{a} < 0 \rightarrow m < 2$



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

$\Delta \geq 0 \rightarrow (2 \sin \alpha)^2 - 4 \geq 0 \Rightarrow 2 \sin \alpha \geq 2 \text{ و } 2 \sin \alpha \leq -2$ (ع)

$\sin \alpha = \pm 1 \xrightarrow{\sin \alpha = 1} \frac{r}{x} x^2 - 2x + \frac{r}{x} = 0 \Rightarrow x = \frac{r}{x}$
 $\xrightarrow{\sin \alpha = -1} \frac{r}{x} x^2 + 2x + \frac{r}{x} = 0 \rightarrow x = -\frac{r}{x} \text{ غرض}$

10. $x^2 - 2x - 1 = 0 \xrightarrow{a+b+c=0} x=1, x=-1$
 $x^2 - 2x - 2 = 0 \xrightarrow{a+c=b} x=-1, x=\frac{5}{x}$
 $-x^2 + \frac{13x}{5} + \frac{5}{5} = 0 \xrightarrow{\times 5} -5x^2 + 13x + 5 = 0$
 $(x-1)(1-x)$

$y_{\max} = \frac{-\Delta}{2a} = -\frac{(199+120)}{-2 \times 2} = \frac{319}{4}$

1/2

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$3S = 2P + V \rightarrow 3(\frac{m+r}{m}) = 2(\frac{-r}{m}) + V \Rightarrow \frac{3m+r}{m} = \frac{-2r}{m} + V$ (ف)
 $m=1 \rightarrow m=2 \rightarrow x^2 + y^2 = 5^2 - 2^2 = 21 \Rightarrow x = \pm \sqrt{21}, y = \pm \sqrt{21}$
 م مختصات یون معلوم
 درجه دوم است و می توان به دست آورد!

$\frac{f\alpha}{a\beta^2} + \frac{\beta^2}{a} \rightarrow \frac{\beta^2}{a} + \frac{f\alpha \times \alpha^2}{a \times f} \rightarrow \frac{\beta^2 + \alpha^2}{a} \rightarrow \frac{5^2 - 3 \times 5}{a}$ (ا)
 $\alpha, \beta = 2 \Rightarrow \beta = \frac{2}{\alpha}$
 $\frac{1 \times 5 - 3}{a} = 19$

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$c = f \xrightarrow{x=-3} 9a - 3b + f = (2 \times (-3)) + 1 \Rightarrow 9a - 3b = -5$ (ا)
 $1 \xrightarrow{x=2} 4a + 2b + f = (2 \times 2) + 1 \Rightarrow 4a + 2b = 1$
 $9a - 3b = -5$
 $4a + 2b = 1$
 $\Rightarrow -5a + 4b = 1 \Rightarrow b = \frac{1+5a}{4}$
 $9a - 3(\frac{1+5a}{4}) + f = 0 \xrightarrow{\text{غرض}} \frac{-b}{2a} = -1, 5$

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$\Delta = 0 \rightarrow m^2 - 1(m+4) = 0 \rightarrow m^2 - m - 4 = 0$ (1)
 $\rightarrow (m+1)(m-4) = 0 \Rightarrow m = -1, m = 4$ غرض