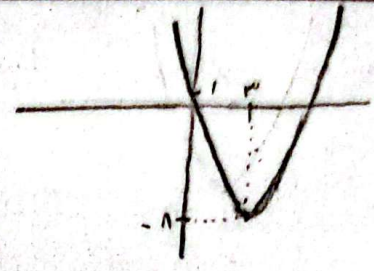


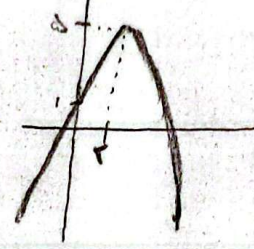
(الف)  $\sum x^r - \epsilon x + 1 \rightarrow \text{cut} \left| \begin{array}{c} -\frac{b}{2a} \\ \checkmark \end{array} \right. \rightarrow \boxed{\text{cut} \left| \begin{array}{c} 1 \\ -1 \end{array} \right.} \rightarrow \boxed{\text{min دار}}$

(ب)  $-2x^2 + 3x - 5 \rightarrow \text{cut} \left| \begin{array}{c} -\frac{b}{2a} \\ -\frac{\Delta}{4a} \end{array} \right. \rightarrow \text{cut} \left| \begin{array}{c} \frac{3}{-4} \\ \frac{-(9-40)}{-8} \end{array} \right. \rightarrow \boxed{\text{cut} \left| \begin{array}{c} \frac{3}{-4} \\ \frac{-31}{-8} \end{array} \right.} \rightarrow \boxed{\text{Max دار}}$

(الف)  $x^2 - 4x + 1 \rightarrow \text{cut} \left| \begin{array}{c} \frac{3}{-1} \end{array} \right. \rightarrow$



(ب)  $y = -x^2 + \epsilon x + 1 \rightarrow \text{cut} \left| \begin{array}{c} \frac{3}{\Delta} \end{array} \right. \rightarrow$



برابر شدن ضرایب  
مثال عددی

$\alpha = -1 \rightarrow \epsilon \alpha + K \alpha^r - 9 \alpha - 2 = 0 \rightarrow -\epsilon + K + 9 - 2 = 0 \rightarrow \underline{K = -\epsilon}$

$\beta = 2 \rightarrow \epsilon \beta^r + K \beta^r - 9 \beta - 2 = 0 \rightarrow \epsilon 2^r + \epsilon K - 18 - 2 = 0 \rightarrow \epsilon K = -12$

$\rightarrow \underline{K = -3}$

$\sqrt{\alpha} - \sqrt{\beta} = 1 \xrightarrow{\text{تربیع}} (\alpha + \beta) - 2\sqrt{\alpha\beta} = 1 \rightarrow 8 - 2\sqrt{P} = 2m - 2\sqrt{m} = 1$

$\sqrt{m} = t \rightarrow 4t^2 - 2t - 1 = 0 \xrightarrow{\text{atb.c.}} \begin{cases} \sqrt{m} = 1 \checkmark \rightarrow \underline{m = 1} \\ \sqrt{m} = \frac{1}{2} \times \text{توجه} \end{cases}$

$2x^r - x - 1 = 0 \rightarrow \rho = \frac{c}{a} = \frac{-1}{2} \rightarrow \boxed{P = -\frac{1}{2}}$

$|m| \times \frac{\sqrt{\Delta}}{|a|} \times \frac{1}{r} = \frac{r}{\epsilon} \rightarrow |m| \times \frac{\sqrt{m^2 + \epsilon m + \epsilon - 4m}}{\epsilon} = |m| \times \frac{\sqrt{m^2 - \epsilon m + \epsilon}}{\epsilon}$

$\rightarrow = |m| \times \frac{|m - \epsilon|}{\epsilon} = \frac{r}{\epsilon} \rightarrow m^r - 2|m| = 3 \rightarrow m^r - 2|m| - 2 = 0$

$\xrightarrow{|m| = t} t^r - 2t - 2 = 0 \rightarrow (t - 2)(t + 1) \rightarrow \begin{cases} |m| = -1 \times \text{توجه} \\ |m| = 2 \checkmark \end{cases} \rightarrow \begin{cases} \underline{m = -2} \\ \underline{m = 2} \end{cases}$

$\text{cut} \left| \begin{array}{c} -\frac{b}{2a} \\ \frac{m}{r} \end{array} \right. \rightarrow \frac{m}{r} \rightarrow \begin{cases} 1/\Delta \\ -1/\Delta \end{cases} \rightarrow \boxed{\{-1, \Delta, 1, \Delta\}}$

$\Delta \min \rightarrow a \geq 0, \text{ ent} \left| \begin{array}{l} -\Delta \\ \epsilon a \end{array} \right. \rightarrow \frac{-\Delta}{\epsilon a} = \frac{V}{\Lambda} \rightarrow -r\Delta = Va$   
 $\rightarrow -r(9 - \epsilon a^2) = Va \rightarrow \Lambda a^2 - Va - 1\Lambda = 0 \rightarrow a = \frac{V \pm \sqrt{\epsilon^2 a^2 + 4V\Lambda}}{2\Lambda}$   
 $a = \frac{V \pm 2\Delta}{19} \rightarrow \frac{a^2}{19} = 2 \checkmark \rightarrow a = 2 \rightarrow \boxed{\text{به ازای یک مقدار}}$   
 $\frac{a^2}{19} = -\frac{9}{19} \times \text{out}$

$x^2 - (a+1)x + a = 0 \rightarrow \frac{r\Delta}{\epsilon a} = r \rightarrow \sqrt{a^2 + r\Delta + 1} - \epsilon a = r \rightarrow \sqrt{a^2 - \epsilon a + 1} = r$   
 $|a-1| = r \rightarrow \begin{cases} a=0 \\ a=2 \end{cases} \rightarrow a+1 > 0 \rightarrow \underline{a=2}$   
 $x^2 - 10x + 9 \rightarrow S = 10 = 9 + \epsilon \rightarrow P = b = 2\epsilon \rightarrow \Delta P = 2\epsilon - 2 = \boxed{21}$

$\frac{b}{r\Delta} \frac{a}{r\Delta} = \frac{1}{r}, \frac{-\Delta}{\epsilon a} = \frac{-(a^2 + \Delta a)}{-\epsilon a} = \frac{-a - 1}{-\epsilon}$   
 $\frac{b}{r} - \frac{b}{r} - 1 = +\frac{a}{\epsilon} + r \rightarrow -\frac{a}{\epsilon} = r \rightarrow \underline{a = -1r} \rightarrow b - a = -9 - (-18) = \boxed{+9}$   
 $\frac{b}{r\Delta} = \frac{b}{\epsilon b} = \frac{1}{\epsilon} \rightarrow \frac{-a}{19} + \frac{\epsilon a}{19} + r = \frac{-a\epsilon}{19} + r = \frac{-\epsilon^2}{19} + r = -\frac{1}{\epsilon} \rightarrow \frac{r \times b}{19} - \frac{b}{\epsilon} - 1 = -\frac{1}{\epsilon}$   
 $\rightarrow -\frac{b}{\Lambda} - 1 = -\frac{1}{\epsilon} \rightarrow \underline{b = -\epsilon}$

$\alpha\beta = \frac{\beta}{r\Delta\alpha} \rightarrow \alpha = \frac{1}{r\Delta\alpha} \times \alpha \rightarrow \alpha^2 = \frac{1}{r\Delta} \rightarrow \alpha = \pm \frac{1}{\Delta}$   
 $\text{if } \alpha = \begin{cases} +\frac{1}{\Delta} \rightarrow 0 = r\Delta \times (\frac{1}{\Delta}) \times (\frac{1}{r\Delta}) + \frac{\epsilon}{\Delta} + \beta = \frac{1}{\Delta} + \frac{\epsilon}{\Delta} + \beta \rightarrow \beta = -1 \times \text{out} \\ -\frac{1}{\Delta} \rightarrow 0 = r\Delta \times (-\frac{1}{\Delta}) + \frac{1}{r\Delta} - \frac{\epsilon}{\Delta} + \beta = -\frac{1}{\Delta} - \frac{\epsilon}{\Delta} + \beta \rightarrow \beta = +1, \alpha = \frac{1}{\Delta} \end{cases}$   
 $\rightarrow y = -\Delta n^2 + \epsilon n + 1 \rightarrow \text{ent} \left| \begin{array}{l} \frac{\epsilon}{10} = \frac{r}{\Delta} \\ \checkmark \end{array} \right. \rightarrow \text{ent} \left| \begin{array}{l} \frac{r}{10} \\ +\frac{9}{\Delta} \end{array} \right. \rightarrow \boxed{\text{با جواب اول}}$

$S = a+b = a^2 + b^2 - 1r \rightarrow a+b = (a+b)^2 - 2ab - 1r$   
 $P = ab = a+b - 1$   
 $\rightarrow 0 = (a+b)^2 - r(a+b-1) - ab - 1r = (a+b)^2 - r(a+b) - 10 = 0$   
 $\frac{a+b}{t} \rightarrow t^2 - \epsilon t - 10 = 0 \rightarrow (t-5)(t+2) = 0 \rightarrow a+b = \begin{cases} = \Delta \checkmark \\ = -r \times \text{out} \end{cases}$   
 $\rightarrow \boxed{a+b = \Delta}$