

اسم نوشته شده است

الف) $a > 0$ min ext $\left\{ \begin{array}{l} x = \frac{-b}{2a} = \frac{2}{4} = \frac{1}{2} \\ y = 2\left(\frac{1}{2}\right)^2 - 2\left(\frac{1}{2}\right) = -\frac{1}{2} \end{array} \right.$

x	0	1/2	1
y	0	-1/2	0



ب) $a < 0$ max ext $\left\{ \begin{array}{l} x = \frac{-b}{2a} = \frac{-2}{-4} = \frac{1}{2} \\ y = 2 \end{array} \right.$

$x(-x+4)$
0, 4

x	0	1	2	3	4
y	0	3	4	3	0

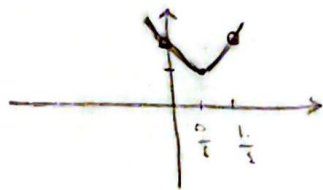


(1, 0), (0, 4)

(ازنایب 2)

الف) $a > 0$ min ext $\left\{ \begin{array}{l} x = \frac{-b}{2a} = \frac{0}{2} \\ y = 2\left(\frac{0}{2}\right)^2 - 0\left(\frac{0}{2}\right) + 2 = 2 \end{array} \right.$

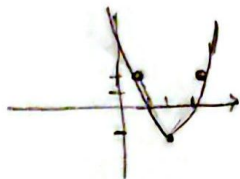
$y = 2\left(\frac{0}{2}\right)^2 - 0\left(\frac{0}{2}\right) + 2 = x\left(\frac{2x}{2}\right) - \frac{2x}{2} + 2 = \frac{2x}{2} - \frac{2x}{2} + 2 = \frac{4}{2} = 2$



(ازنایب 2)

x	0	0	1/2
y	2	2	2

ب) $a < 0$ max ext $\left\{ \begin{array}{l} x = \frac{-b}{2a} = \frac{-2}{-4} = \frac{1}{2} \\ y = -1 \end{array} \right.$



(ازنایب 2, 2)

x	1	1/2	0
y	2	-1	2

الف) $\frac{b}{a} = \frac{-b}{2a} = \frac{1}{2}$

$\frac{1}{\sqrt{\Delta}} = \frac{1}{\sqrt{1+12}} = \frac{1}{\sqrt{13}}$

ب) $(\alpha + \beta)^2 = \alpha^2 + \beta^2 + 2\alpha\beta$
 $1 = \alpha^2 + \beta^2 - 4$
 $V = \alpha^2 + \beta^2$

$\alpha + \beta = \frac{1}{2} = \frac{1}{2} = 1$
 $\alpha\beta = \frac{2}{2} = -1$
 $|\alpha - \beta| = \frac{\sqrt{\Delta}}{|a|} = \frac{1 - 2(-2)}{1} = \sqrt{13}$

ج) $\alpha^2 + \beta^2 = (\alpha + \beta)(\alpha^2 + \beta^2 - \alpha\beta) = (1)(V - (-1)) = 10$

د) $\alpha^2 - \beta^2 = (\alpha - \beta)(\alpha^2 + \beta^2 + \alpha\beta) = (\sqrt{13})(V + (-1)) = 4\sqrt{13}$

$x^2 - 2 = 0 \rightarrow x = \pm\sqrt{2}$ \rightarrow عددان متضاد
 نقطه تقاطع 2

$x^2 - 4a = 0$
 $a(a - 4) = 0$
 $a = 0, 4$ ①

$x^2 - ax + a$
 $\Delta < 0 \rightarrow a^2 - 4a < 0$
 دیشمارف $a(a - 4) < 0 \rightarrow 2 < a < 4$



$x^2 = 0 \rightarrow x = 0$
 یعنی 0 و 0
 $x^2 - 4x + 4$
 $(x - 2)^2$

② (2, 4)

① U ② $\rightarrow (0, 4]$

