

بناظر

۲. آفرین

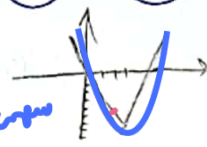
$y = -2x^2 - 5x + 1$ $a > 0$
min \cup

ext $\left| \begin{aligned} -\frac{b}{2a} &= \frac{5}{-4} = -1.25 \\ -\frac{\Delta}{4a} &= \frac{-(b^2 - 4ac)}{4a} = -\frac{(25 - 4(-2)(1))}{-8} = -\frac{12-1}{-8} = -\frac{-1}{-8} = -\frac{1}{8} \end{aligned} \right.$

$y = -2x^2 + 3x - 2$ $a < 0$
max \cap

ext $\left| \begin{aligned} -\frac{b}{2a} &= \frac{3}{-4} = -\frac{3}{4} \\ -\frac{\Delta}{4a} &= \frac{-(b^2 - 4ac)}{4a} = \frac{-9 - 4(-2)(-2)}{-8} = \frac{-9 - 16}{-8} = \frac{-25}{-8} = \frac{25}{8} \end{aligned} \right.$

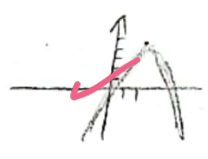
$y = x^2 - 2x + 1$ ext $\left| \begin{aligned} \frac{y}{x} &= 1 \\ -\frac{\Delta}{4a} &= -1 \end{aligned} \right.$



سپس از مشتق استفاده!

$y = -x^2 + 5x + 1$ ext $\left| \begin{aligned} \frac{y}{x} &= 5 \end{aligned} \right.$

$\frac{-(b^2 - 4ac)}{4a} = \frac{-25 - 4(-1)(1)}{-4} = \frac{-25 - 4}{-4} = \frac{-29}{-4} = \frac{29}{4}$



$f\alpha^3 + k\alpha - 9\alpha - 2 = 0$
 $f\beta^3 + k\beta - 9\beta - 2 = 0$
 $\alpha + \beta = 1$
 $\alpha\beta = -2$
 $2x^2 - 5x + 1 = 0$
 $2x^2 - 12x - 2 = 0$
 $(x-2)(x+1) = 0$

$f(x^3) + kx - 11 - 2 = 0$
 $f(-1)^3 + k + 9 - 2 = 0 \rightarrow k = -2$

$\sqrt{\alpha} - \sqrt{\beta} = 1$

$2x^2 + mx - 1 = 0$

$p = ?$
 $p = m$
 $S = \frac{-b}{a} = \frac{-m}{1} = -m$

$(\sqrt{\alpha} - \sqrt{\beta})^2 = \frac{\alpha + \beta}{m} - 2\sqrt{\frac{\alpha\beta}{m}} = 1$

$2m - 2m = 1 \Rightarrow m = 1$
 $2x^2 + x - 1 = 0$
 $x^2 + \frac{x}{2} - \frac{1}{2} = 0 \Rightarrow p = -\frac{1}{2}$

$\frac{-b}{2a} = \frac{m}{2}$

$x - m - 2 + m = 0$
 $x = 1$
 $x = \frac{c}{a} = \frac{m}{2}$

ا: وقتی $x=0$ با y برضورد نقاط $x=0$ پس

$y = 0 + 0 + m$ $y = m$

$S = m \times (\frac{m}{2} - 1) = \frac{m^2}{2}$

$y = x^2 - 3x + 1$
 $S = \frac{9}{4}$

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

$y = x^2 + 2x + 1 = (x+1)^2$
 $S = -\frac{1}{4}$

$$\frac{-\Delta}{\pm a} = \frac{v}{\lambda} \quad \frac{-(-9 - \epsilon(a)(a))}{\pm a} = \frac{v}{\lambda}$$

$$\frac{-9 + \epsilon a^2}{\pm a} = \frac{v}{\lambda} \quad \lambda a^2 - 1 \lambda = v a \quad \text{PC. } a) \text{ } \frac{a}{\epsilon} \text{ } \frac{v}{\lambda} \text{ } 0\%$$

$$\lambda a^2 - v a - 1 \lambda = 0 \quad \text{جواب مثبت}$$

Ⓟ

$$x^2 - (a+1)x + a = 0$$

$$1 - a - 1 + a = 0$$

$$x_1 = 1$$

$$\frac{c}{a} \rightarrow x = a \rightarrow \text{Ⓟ} \rightarrow x^2 - \left(\frac{v}{\lambda} + 1\right)x + b = 0 \quad 4 \times \epsilon - v = \text{Ⓟ}$$

$$x^2 - 10x + b = 0 \quad y_1 = \text{Ⓟ} \quad y_2 = \text{Ⓟ}$$

$$S = 10$$

Ⓟ

$$y_1 = -ax^2 + ax + v \rightarrow \frac{-a}{-2a} = \frac{1}{2} \quad \frac{-a}{\epsilon} + \frac{a}{\epsilon} + v = \frac{a}{\epsilon} + v \quad \frac{1}{\epsilon}$$

$$y_2 = 2bx^2 - bx - 1 \rightarrow \frac{b}{2a} = \frac{1}{2} \quad y_2 = \frac{b}{\lambda} - \frac{b}{\epsilon} - 1 = -1 - \frac{b}{\lambda} \rightarrow \frac{1}{\epsilon} - \frac{b}{\lambda} - 1$$

$$y_2 = 2b\left(\frac{1}{\epsilon}\right)^2 - \frac{b}{\epsilon} - 1 = \frac{a}{\epsilon} + v \rightarrow \frac{a}{\epsilon} = -v \quad a = -12$$

$$y_1 = -a\left(\frac{1}{\epsilon}\right)^2 + \frac{a}{\epsilon} + v = \frac{-b}{\lambda} - 1 \rightarrow \frac{-b}{\lambda} = \frac{va}{12} + v \quad \frac{v}{\lambda} \quad b = -4$$

$$-9 + 12 = \text{Ⓟ}$$

Ⓟ

$$y = \pm \alpha a x^2 + \epsilon x + \beta = 0$$

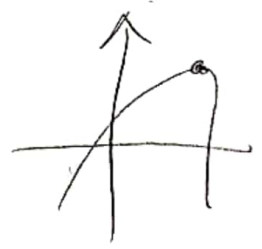
$$\alpha + \beta = -\frac{\epsilon}{\pm a} = \frac{-b}{a}$$

$$\alpha \beta = \frac{c}{a} = \frac{\beta}{\pm a}$$

$$\alpha \beta = \frac{\beta}{\pm a} \rightarrow \alpha = \frac{1}{\pm a} \rightarrow \pm a \alpha^2 = 1 \quad \alpha = \pm \frac{1}{a}$$

$$\beta = -\frac{\epsilon}{\pm a} - \alpha \rightarrow \alpha = \frac{1}{a} \rightarrow \beta = \frac{\epsilon}{a} + \frac{1}{a} = \text{Ⓟ}$$

$$\pm a \alpha < 0 \quad \beta = 1 \quad \alpha = -\frac{1}{a}$$



دلتا صفر

Ⓟ

$$S = \frac{-b}{a} \quad S = a^2 + b^2 - 12 = ((a+b)^2 - 2ab) - 12 = S^2 - 2P - 12$$

$$P = S - 1 \quad S^2 - 2(S-1) - 12 = S$$

$$S^2 - 2S - 10 = 0$$

$$(S-5)(S+2) = 10 \quad \checkmark$$

Ⓟ