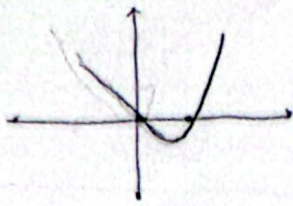


19,5

سید محمد اویسان



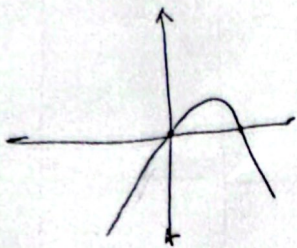
~~$x^2 + kx + k$~~
 $x(x + k - 1)$

$x = 0$
 $x + k - 1 = 0$
 $x = 1 - k$

✓ x_{min} ①

②

~~③~~



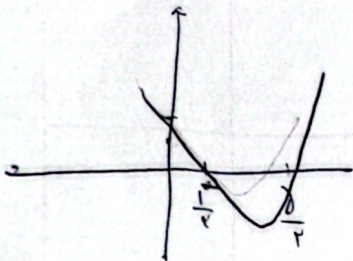
$x(-x + k)$

$x = 0$
 $x = k$

✓ x_{max} ①

$x^2 - ax + k = 0$

$(x-1)(x-a) = 0$

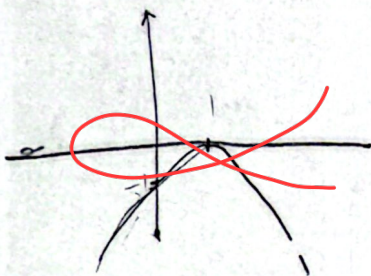


$x=1 \quad x=a \rightarrow \frac{1}{r}, \frac{a}{r}$

✓ x_{min} ①

②

③, ④



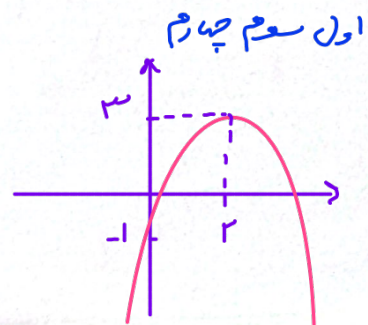
~~$y = -(x-1)^2$~~

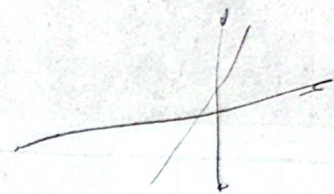
$y = -(x-1)^2$

$x=1$

✓ x_{max} ①

ext $\left\{ \begin{array}{l} \frac{-b}{2a} = 1 \\ k \end{array} \right.$





$$\alpha = k$$

$$x^2 - \alpha x + \alpha = (x - \alpha)$$

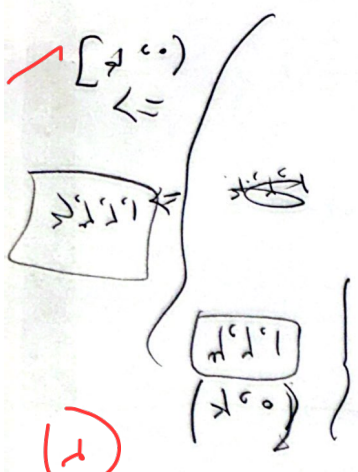
$$x^2 - \alpha x + \alpha = (x - \alpha)$$

$$\frac{+}{-} \frac{-}{+}$$

$$a(a - \alpha)$$

$$a^2 - \alpha a$$

$$|\alpha - \alpha| > |\alpha - \alpha| < 0$$



$$\sqrt{1 + \alpha} \sqrt{1 - \alpha} = k \sqrt{1 - \alpha}$$

$$\sqrt{1 + \alpha} \sqrt{1 - \alpha} = (1 + \alpha) \sqrt{1 - \alpha} + \alpha \sqrt{1 - \alpha}$$

$$(1) \sqrt{1 - \alpha} = 1$$

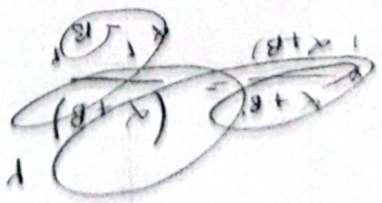
$$(2) \sqrt{1 + \alpha} \sqrt{1 - \alpha} = (1 + \alpha) \sqrt{1 - \alpha} + \alpha \sqrt{1 - \alpha}$$

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

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

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

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



$\alpha = \dots$

$$\begin{aligned} r\alpha - 1r\alpha - \alpha &= \dots \\ r\alpha - 1r\alpha &= 0 \\ \alpha(r\alpha - 1) &= 0 \\ \alpha &= 0 \end{aligned}$$

$$\begin{aligned} \alpha^r + \beta^r + \alpha^r - r\alpha &= V \\ r^r - r^r + \frac{\alpha}{r} &= V \Rightarrow \end{aligned}$$

$$\begin{aligned} 17 - r(-\frac{9}{r}) + \frac{9}{r} &= V \\ \alpha &= -9 \checkmark \end{aligned}$$

$$r\alpha - 1r\alpha = a \Rightarrow \alpha^r - r\alpha = \frac{a}{r}$$

$$r\alpha - 1r\alpha + a = \dots$$

$$\frac{a}{r} = -r \checkmark$$

$$\begin{aligned} \alpha &= 1 \\ \beta &= r \end{aligned}$$

$$y = an^r + bn + c$$

$$S(z, z, -r)$$

$$\frac{-b}{ra} = z$$

$$\left\{ \begin{aligned} \frac{-b}{ra} &= \frac{-\Delta}{ra} \end{aligned} \right.$$

$$\frac{-\Delta}{ra} = z - r \Rightarrow \frac{-\Delta}{ra} + r = z$$

$$\frac{-b + \Delta}{ra} = 0$$

گفتم

$$-rb + \Delta = 0$$

$$-rb + b^r - rac$$

$$a n^r - a n = b$$

$$a n^r - a n = b$$

(r)

(✓)

$$\left(\frac{r \cdot \beta^r + r \cdot a^r}{r \cdot (\beta^r - a^r)} \right) + \left(\frac{r \cdot \beta^r - r \cdot \beta}{r \cdot b} \right) = 1V$$

$$a n^r - a n - b = 0$$

$$n^r - n - \frac{b}{a} = 0 \Rightarrow \beta^r - \beta - \frac{b}{a} = 0$$

$$\beta^r - \beta = \frac{b}{a}$$

$$r \cdot \beta^r - r \cdot \beta = \frac{r \cdot b}{a}$$

$$r \cdot (\beta^r - \beta) + \frac{r \cdot b}{a} = 1V$$

$$r \cdot \left(1 + \frac{r \cdot b}{a}\right) + \frac{r \cdot b}{a} = 1V \Rightarrow \frac{r \cdot b}{a} = -r$$

$$\sqrt{a^r + r a b}$$

$$|a - r\beta| = \frac{\sqrt{a^r + r a b}}{a} = \sqrt{\frac{a^r + r a b}{a^r}} \quad \frac{b}{a} = -\frac{1}{r}$$

$$\frac{r \sqrt{r_0}}{r}$$

$$\sqrt{1 + \frac{r \cdot b}{a}} = \sqrt{1 + r \left(-\frac{1}{r}\right)} = \sqrt{1 - 1} = 0$$

$$1a - r c = 0$$

$$1a = r$$

$$a = \frac{r}{1}$$

$$\frac{r}{1} = \frac{-0 + 1}{r} = -r$$

$$\frac{r}{1} n^r + \frac{r}{r} = r$$

$$n = 1, r \cdot 1 + r = r$$

(✓)

(1)

$$\frac{-b}{r a} = -r$$

$$r a = r \Delta$$

$$r a b = r b^r - 1 a c$$

$$r a = r(1 + r a^r) - 1 a c$$

$$r a = r r a^r - 1 a c$$

$$r a = r a (1 + r a^r) - 1 a c$$

$$r a = r a^r - 1 a c$$

$$\frac{2+B}{aB} + \frac{r\sqrt{aB}}{aB}$$

(1, \sqrt{a})

$$\frac{m+1K}{\frac{1}{r} \cdot \frac{1}{a}} = \frac{K \cdot \frac{1}{r}}{\frac{1}{r} \cdot \frac{1}{a}} = \Delta$$

$$\frac{r \cdot (m+1K) + 1r}{r} = \Delta$$

~~$$r(m+1K) + 1r = \Delta$$~~

$$m+1K+1r = \Delta$$

~~$$r \cdot m + a \cdot K + 1r = \Delta$$~~

$$m = \Delta - 1 \quad \checkmark$$

$$c = \frac{r}{a} = \frac{1}{a} \quad \checkmark$$

$$p = \frac{c}{a} = \frac{r}{m} = \frac{-r}{m}$$

(6) انیس

$$a - r \rightarrow a$$

(5) ۱۰

~~$$V - r a + r a + r = \Delta$$~~

۱۰

$$\Rightarrow b = n, \quad \frac{1}{a} = \Delta$$

$$y = a(n-n) + y$$

$$y = a(x-a) + r$$

$$y = x^2 + r a - 1 \cdot x + r$$

~~$$y = n^2 - 1 \cdot n + r$$~~

(۱۰)

4 - A و B هم عرضند پس طول رأس بیانیته اینست:

$$n_S = b = \frac{v - 2a + 2a + 3}{2} = 5 \rightarrow S(5, 3)$$

مولفه‌ها A و B طبیعی اند:

$$\begin{cases} v - 2a > 0 \rightarrow a < 3, 5 \\ 2a + 3 > 0 \rightarrow a > -1, 5 \\ a - 2 > 0 \rightarrow a > 2 \end{cases} \rightarrow a = 3 \quad A(9, 1) \quad B(1, 1)$$

$$y - 3 = a(x - 5) \xrightarrow{(1, 1)} a = -\frac{1}{8} \xrightarrow{\text{معادله کوچکتر}} y - 3 = -\frac{1}{8}(x - 5)^2$$

$$y - 3 = -\frac{1}{8}(0 - 5)^2 \rightarrow y = -\frac{1}{8}$$

محل برخورد سهمی با محور عرضی‌ها:

فاصله تا مبدأ مختصات $\left[\frac{1}{8} \right]$

$$n_S = \frac{-\omega + 1}{2} = -2$$

- 1

$$f(x) = a(x + 2)^2 - \frac{1}{2}$$

$$(0, \frac{3}{2}) \in f(x) \rightarrow \frac{3}{2} = a(0 + 2)^2 - \frac{1}{2} \rightarrow a = \frac{1}{2}$$

$$(1, \beta) \in f(x) \rightarrow \beta = \frac{1}{2}(1 + 2)^2 - \frac{1}{2} \rightarrow \beta = 4$$