

175 آئين

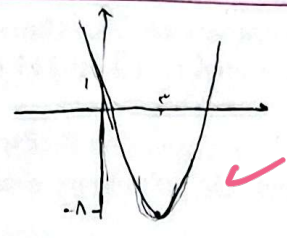
الف) $y = 2x^2 - 4x + 1$

$\min \left| \frac{1}{-1} \right|$

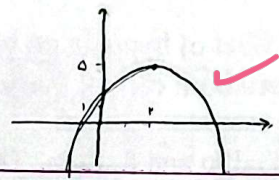
ب) $y = -2x^2 + 4x - 5$

$\max \left| \frac{r}{-a} + \frac{q}{e} - 5 = \frac{q}{a} - 5 = \frac{-21}{8} \right|$

الف) $y = x^2 - 4x + 1$



ب) $y = -x^2 + 4x + 1$



$fx^2 + kx^2 - 9x - 2 = 0 \xrightarrow{x=-1} -f + k + 9 - 2 = 0$
 $0 = x^2 - 5x + p$
 $0 = x^2 - x - 2 \rightarrow -1$
 $\quad \quad \quad +2$

$k = -3$

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

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

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

$rm - r\sqrt{m} = 1, \sqrt{m} = t \rightarrow rt^2 - 2t - 1 = 0 \rightarrow t = \sqrt{m} = 1 \rightarrow m = 1$
 $t = \sqrt{m} \neq \frac{1}{r} \times$

$2x^2 - mx - m = 0$

$p = \frac{-m}{r} = \left[-\frac{1}{2} \right]$

$y = 2x^2 - (m+r)x + m$

$S = \frac{(\alpha-\beta)h}{r} = \frac{r}{e} - (\alpha-\beta)h = \frac{r}{e}$

$\frac{m-r}{r} \times m = \frac{r}{r}$

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

$(\alpha-\beta)^2 = \frac{(m+r)^2 - 4m}{r^2}$

$(\alpha-\beta)^2 = \frac{m^2 + 2m + 1 - 4m}{r^2} \rightarrow \alpha - \beta = \frac{m-1}{r}$

$y = x^2 - mx + 1$
 $\frac{-b}{2a} = \frac{-m}{2} \rightarrow \left[\frac{1}{2} \right]$

$mr - rm - r = 0 \rightarrow \begin{matrix} -1 \\ 3 \end{matrix}$

$y = ax^2 + 4x + a$

الحد الأدنى $\rightarrow a > 0$

$\min \left| \frac{-a}{4a} = \frac{v}{4r} \rightarrow -r\Delta = va$

$\Delta = \frac{-va}{r}$

$9 - 4ar = \frac{-va}{r}$

$0 = 4ar - \frac{va}{r} - 9$

$0 = 4a^2r - va - 18$

$a = \frac{v \pm \sqrt{v^2 + 40vr}}{17} = \frac{v \pm v}{17} \rightarrow \begin{matrix} 2 \\ -9 \end{matrix} \times$

$$x^r - (a+1)x + a = 0 \quad \left. \begin{array}{l} \rightarrow 1 \\ \rightarrow a \rightarrow r \end{array} \right\} \textcircled{r}$$

$\alpha, \alpha+r$

1.20

$$x^r - (ra+1)x + b = 0 \xrightarrow{a=r} x^r - 10x + b = 0$$

$$\beta, \beta+r$$

$$x = \frac{10 \pm \sqrt{100-4rb}}{r} \rightarrow \frac{10 - \sqrt{100-4rb}}{r} + \frac{b}{r} = \frac{10 + \sqrt{100+4b}}{r}$$

$$P = b = \textcircled{-r^2}$$

$$|r - (-r^2)| = \textcircled{-r^2}$$

$$\begin{aligned} 10 - \sqrt{100-4rb} + \frac{b}{r} &= 10 + \sqrt{100+4b} \\ r &= 2\sqrt{100+4b} \\ r &= \sqrt{100+4b} \\ r^2 &= 100+4b \\ -r^2 &= -\frac{97}{4} = b \end{aligned}$$

$$y = -ax^r + ax + r \quad \text{ext} \left| \frac{1}{r} \right. \left. \begin{array}{l} -\frac{a}{r} + \frac{a}{r} + r = \textcircled{\frac{a}{r} + r} \end{array} \right. \Rightarrow \frac{-b}{r} - 1 = \frac{a}{1r} + \frac{a}{r} + r \quad -\Delta$$

$$-r = \frac{ra}{1r} + \frac{ra}{r} \rightarrow ra + rb = -r^2$$

$$y = rbx^r - bx - 1 \quad \text{ext} \left| \frac{1}{r} \right. \left. \begin{array}{l} \frac{b}{r} - \frac{b}{r} - 1 = \textcircled{\frac{-b-1}{r}} \end{array} \right. \Rightarrow \frac{a}{r} + r = rb \times \frac{1}{r} - \frac{b}{r} - 1 \quad b = -4$$

$$b - a = -4 + r = \textcircled{r}$$

$$\frac{a}{r} = -r \rightarrow a = -r^2$$

$$y = ra \times x^r + rx + \beta \rightarrow -ax^r + rx + 1$$

$$\text{max} \left| \frac{+r}{\Delta} \right. \left. \begin{array}{l} -\frac{r}{\Delta} \times \frac{r}{\Delta} + \frac{1}{0} + 1 = \frac{1}{0} \end{array} \right. \left. \begin{array}{l} \textcircled{r} \\ \textcircled{r} \end{array} \right.$$

$$\begin{aligned} \alpha\beta &= \frac{\beta}{r\alpha} \rightarrow \beta \left(\alpha - \frac{1}{r\alpha} \right) = 0 \\ \alpha \neq 0, \beta \neq 0 &\rightarrow \alpha = \frac{1}{r\alpha} \rightarrow r\alpha^2 = 1 \rightarrow \alpha = \pm \frac{1}{\sqrt{r}} \\ \alpha + \beta &= \frac{-r}{r\alpha} \rightarrow \beta = -1 \times \alpha = -\frac{1}{\sqrt{r}} \end{aligned}$$

$$x^r - (a^r + b^r - 1r)x + a + b - 1 = 0$$

$$a + b = a^r + b^r - 1r \xrightarrow{a^r + b^r = (a+b)^r - rab} a + b = (a+b)^r - rab - 1r$$

$$ab = a + b - 1 \rightarrow a + b = (a+b)^r - r(a+b-1) - 1r$$

$$s = s^r - r(s-1) - 1r$$

$$0 = s^r - rs - 1 \rightarrow \begin{array}{l} s = -r \\ s = \Delta \end{array}$$

$$x^r - (a+1)x + a = 0 \xrightarrow{a+b+c=0} \begin{cases} x_1 = 1 \\ x_2 = a \end{cases} \quad \begin{array}{l} \text{مورد زودتر} \\ \rightarrow a = r \end{array} \quad \underline{V}$$

$$x^r - 10x + b \xrightarrow{\text{درجه زودتر متوالی}} rx + rx + r = 10 \rightarrow x = 2 \rightarrow \text{درجه 4, 4 متوالی}$$

$$(4 \times 4) - (3 \times 1) = 16 - 3 = \textcircled{13}$$