

مدرضا اشرفی (مدرس)

به نام خدا

۲۰

الف)  $y = 2x^2 - 2x + 1$

min

ext  $\begin{cases} \frac{-b}{2a} = \frac{1}{2} = 1 \quad \checkmark \Rightarrow \text{ext} \{ \pm \} \\ \frac{-\Delta}{4a} \Rightarrow f(1) - f(1) + 1 = -1 \end{cases}$

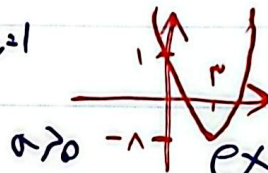
ب)  $y = -2x^2 + 2x - 1$

max

ext  $\begin{cases} \frac{1}{2} \\ \frac{1}{2} \end{cases}$

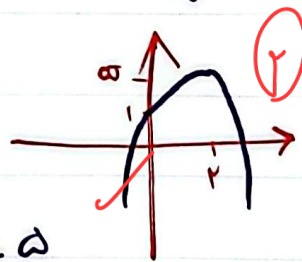
ext  $\begin{cases} \frac{-b}{2a} \rightarrow \frac{-1}{-2} = \frac{1}{2} \\ \frac{-\Delta}{4a} \Rightarrow \frac{1 - 1}{-4} = \frac{0}{-4} = 0 \end{cases}$

الف)  $y = x^2 - 4x + 1$



ext  $\begin{cases} \frac{-b}{2a} \Rightarrow \frac{4}{2} = 2 \\ \frac{-\Delta}{4a} \Rightarrow \frac{16 - 4}{4} = 3 \end{cases}$

ب)  $y = -x^2 + x + 1$



ext  $\begin{cases} \frac{-b}{2a} = \frac{-1}{-2} = \frac{1}{2} \\ \frac{-\Delta}{4a} = -\frac{1 - 1}{-4} = 0 \end{cases}$

$x^2 - 5x + 6 \xrightarrow{S} \alpha + \beta = 1$   
 $\xrightarrow{P} \alpha\beta = 2$  }  $x^2 - x - 2$  }  $\alpha = -1, \beta = 2$   
 $\alpha = 2, \beta = -1$

if  $\alpha = -1$   
 $\beta = -1$  }  $\rightarrow Cx^2 + kx^2 - 9x - 2 = 0 \rightarrow -1 + k + 9 - 2 = 0$   
 $\rightarrow k = -7$

Scanned with



$$x^r - (a+1)x + a = 0 \rightarrow \begin{cases} x_1 = \frac{a}{1} \\ x_2 = 1 \end{cases}$$

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

$$x^r - 10x + b = 0 \rightarrow \begin{cases} x_1 = k \\ x_2 = 4 \end{cases}$$

$$P_1 - P_2 = (4 \times k) - (k \times 1) = 12$$

$$y_1 = a - a x^r + a x + 1 \rightarrow \text{expt}$$

$$y_2 = b x^r - b x - 1$$

$$\text{expt} \left\{ \begin{aligned} \frac{1}{a} &= \frac{1}{a} \\ \frac{1}{a} &= \frac{1}{a} \\ \frac{1}{a} &= \frac{1}{a} \end{aligned} \right.$$

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

$$\frac{b}{r} - \frac{b}{r} - 1 = \frac{a+1}{r} \Rightarrow a = 12$$

$$b - a = -4 \Rightarrow b = -4$$

$$x^r - r + k = \frac{-1}{r} \Rightarrow \frac{-b-1}{r} = \frac{-1}{r} \Rightarrow b+1 = k \Rightarrow b = -4$$

$$\text{if } \beta > \alpha \text{ و } y = k_0 a x^r + k_1 x + \beta \rightarrow \alpha + \beta = \frac{-r}{10a}$$

$$\alpha + \beta = \frac{r}{10a} \Rightarrow k_0 a x^r = 1$$

$$\text{if } \alpha = \frac{1}{a} \Rightarrow \beta = -1$$

$$\text{if } \alpha = \frac{-1}{a} \Rightarrow \beta = 1$$

$$y = -2x \frac{r}{10} + \frac{1}{a} + 1 = \frac{1}{a}$$

Scanned with

$$y = x^r (a^r + b^r - 1)x + a + b - 1 = 0 \quad \begin{cases} \rightarrow s = a^r + b^r - 1 \Rightarrow s = x + p \\ \rightarrow p = a + b - 1 \Rightarrow p = s - 1 \end{cases}$$

$$s = s^r - ps - 1$$

$$\hookrightarrow s = s^r - ps + p - 1 \Rightarrow s^r - ps - 1 = 0$$

$$(s - a) \dots (s + 1)$$

$$s = \frac{a}{-1}$$