

ایضاح دفتر A

سفره یا سیمانه : ۱۴

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$$y = (a-1)x^2 + x + 3 \Rightarrow \frac{-b}{2a} = 2 \rightarrow \frac{-1}{2a-2} = 2 \rightarrow -1 = 4a - 4 \Rightarrow \frac{3}{2} = a$$

$$\Rightarrow y = -\frac{1}{2}x^2 + x + 3$$

$$\Delta = 1 - 4\left(-\frac{1}{2}\right)(3) = +7 \Rightarrow \begin{cases} x_1 = \frac{-1+2}{-1} = -1 \\ x_2 = \frac{-1-2}{-1} = 3 \end{cases}$$

تقریباً

1

$$f(x) = mx^2 - 2x + m$$

$$\Rightarrow m < \dots (I)$$



$$\Delta > 0 \Rightarrow 4 - 4(m)(m) > 0$$

$$2 > 2m^2 \Rightarrow \frac{2}{2} > m^2$$

2

$\Delta > 0, a < 0$

$$I \cap II \rightarrow \left(-\frac{2}{m}, 0\right)$$

$$x_1 = \frac{1-\sqrt{5}}{2} \quad x_2 = \frac{1+\sqrt{5}}{2}$$

$$\Rightarrow p = \frac{9-5}{9} = \frac{4}{9} \Rightarrow y = ax^2 + bx + c \Rightarrow x^2 + 2x + \frac{4}{9} = y$$

$$\Rightarrow S = 2$$

3

$$2m^2 - 4m + m + 1 = 0$$

$$(a-1)^2 = 0 \Rightarrow a=1$$

$$2a^2 - 4a + 1 = 0 \Rightarrow a^2 - 2a + 1 = 0$$

$$m=1 \Rightarrow m+1=2 \Rightarrow a+b=2 \Rightarrow b=1$$

$$2a^2 + b^2 = 12 \Rightarrow 2a^2 + (a+b)^2 = 12 \Rightarrow 2a^2 + (a+1)^2 - 2a = 12$$

$$a^2 - 2a = -1 \Rightarrow 2a^2 + 2a = -2 \Rightarrow a^2 + a = -1$$

$$a(a+1) = -1 \Rightarrow a^2 + a + 1 = 0 \Rightarrow a = -1$$

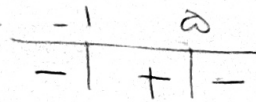
4

$$y = a(x-h)^2 + k \rightarrow y = a(x-1)^2 + 9 \xrightarrow{(0,9)} 9 = a(1) + 9$$

$$\Rightarrow a = -1$$

$$y = -1(x^2 + 2x + 1) + 9 = -x^2 - 2x - 1 + 9 = -x^2 - 2x + 8 = -(x+1)(x-1)$$

5



$$\Rightarrow (-1, 8)$$

$$ax^r - vm + q\beta = - \quad \frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta} = \frac{\sqrt{14} + \frac{r}{\sqrt{14}}}{-14 \times \frac{r}{\sqrt{14}}} = \frac{-\sqrt{14} + r}{-r} = +\frac{r}{\sqrt{14}}$$

$$\frac{q\beta}{\alpha} = \alpha/\beta \rightarrow \alpha^r = q \rightarrow \alpha = \pm \sqrt{q}$$

$\alpha + \beta = \frac{r}{\sqrt{14}}$

if $\alpha = +\sqrt{q} \rightarrow \beta = \frac{r}{\alpha} = \frac{r}{\sqrt{q}} = \frac{r}{\sqrt{14}} = -\frac{r}{\sqrt{14}} \rightarrow \beta = -\frac{r}{\sqrt{14}}$

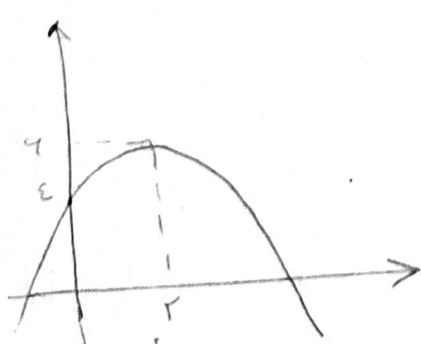
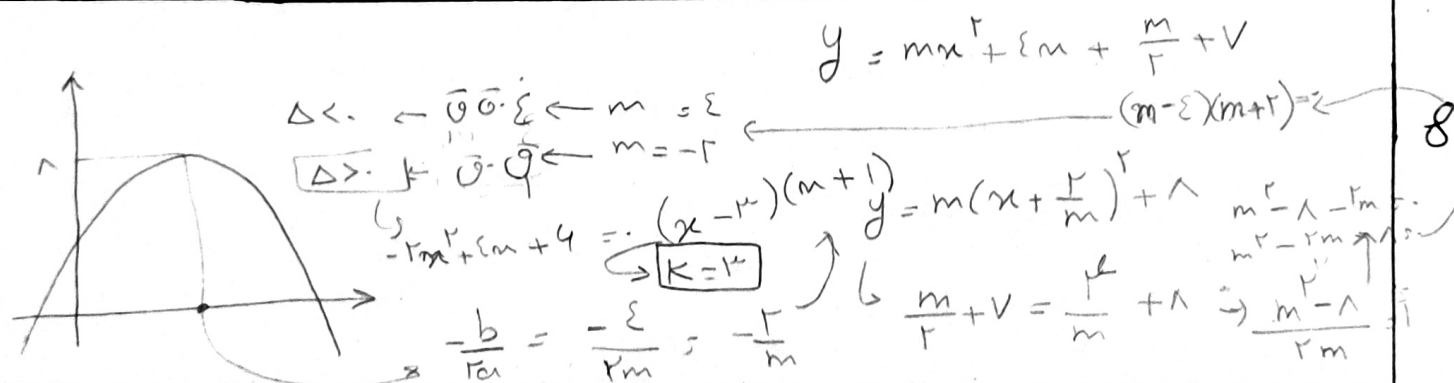
if $\alpha = -\sqrt{q} \rightarrow \beta = \frac{r}{\alpha} = \frac{r}{-\sqrt{q}} = -\frac{r}{\sqrt{q}} = -\frac{r}{\sqrt{14}} \rightarrow \beta = -\frac{r}{\sqrt{14}}$

$$x^r + mx - r = - \rightarrow m = r \rightarrow m^r + r_m - r = - \rightarrow \Delta < 0 \rightarrow \boxed{-r}$$

$$a^r - m\beta = \Lambda \rightarrow -ma + r_m - m\beta = \Lambda$$

$$-m(\alpha + \beta) + r_m = \Lambda \rightarrow m^r + r_m - \Lambda = - \Rightarrow (m + \epsilon)(m - r) = -$$

(1, 1, 1) $\boxed{m = \epsilon} \leq m = r$



$$y = a(x - r)^r + 4 \rightarrow \epsilon = a(-r)^r + 4$$

$$\epsilon = \epsilon a + 4$$

$$y = -\frac{1}{r}(m^r - \epsilon m + \epsilon) + 4 \quad \leftarrow a = -\frac{1}{r}$$

$$y = -\frac{1}{r}x^r + rx - r + 4 = -\frac{1}{r}x^r + rx + \epsilon$$

$$\Delta = \epsilon - \epsilon(-\frac{1}{r})^r = 14 \rightarrow -\frac{1}{r} \pm \sqrt{14} \rightarrow \frac{1}{r - \sqrt{14}} + \frac{1}{r + \sqrt{14}} \rightarrow \frac{r + \sqrt{14} + r - \sqrt{14}}{\epsilon - 14} = \frac{\epsilon}{-14}$$

$$x^r - (\epsilon a + \epsilon)m + (rx^r + 4a + r) = - \rightarrow \frac{x^r}{r} - \epsilon - \Lambda a - \Lambda + rx^r + 4a + r = rx^r - \epsilon a - 1 = -$$

$$\Rightarrow rx^r - \epsilon a - 1 = - \rightarrow a^r - \epsilon a - r = - \rightarrow (a - r)(a + 1) \rightarrow (a - 1)(a + 1) \rightarrow a = 1 \text{ or } a = -1$$

$$x^r - \Lambda x + 14 = - \rightarrow (x - r)(x - 4) = - \rightarrow x = r$$

$\rightarrow x = 4$