

یازدهم به B

تکلیف شماره ۱۴

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$$y = -x^2 + bx + c \rightarrow y_s = v$$

Part / $x_s = \frac{-b}{2a}$

$$y_s = -\frac{\Delta}{4a} = v, \Delta = b^2 - 4ac, \frac{-b^2 + 4ac}{4a} \xrightarrow{a=-1, c=2} \frac{-b^2 - 12}{-4} \xrightarrow{y_s=v} \frac{-b^2 - 12}{-4} = v$$

$$\frac{-b^2 - 12}{-4} = v \rightarrow \frac{b^2 + 12}{4} = v \rightarrow b^2 + 12 = 4v$$

$$b^2 = 12 \rightarrow b = \pm 2\sqrt{3}$$

$$b = 2\sqrt{3} \Rightarrow y = -x^2 + 2\sqrt{3}x + 2 \xrightarrow{x_s} x_s = \frac{-b}{2a} \rightarrow \frac{-2\sqrt{3}}{-2} = \sqrt{3} \rightarrow y = -(3) + 12 + 2 = 11$$

$$b = -2\sqrt{3} \Rightarrow y = -x^2 - 2\sqrt{3}x + 2 \xrightarrow{x_s} x_s = \frac{-b}{2a} \rightarrow \frac{2\sqrt{3}}{-2} = -\sqrt{3} \rightarrow y = -(3) + 12 + 2 = 11$$

الف) $f(x) = ax^2 + bx + c$ $\frac{ax^2 + bx + c}{x^2 + 2x + 3} = 0$ $b = \pm 2\sqrt{3}$ هر مقدار در کتاب است

$$\Delta = b^2 - 4ac \rightarrow 12 - 12 = 0 \rightarrow \Delta = 0$$

$$f(x) = (x - \sqrt{3})(x + \sqrt{3}) - 10$$

$$x^2 - 3 = t \rightarrow t^2 - 2t - 10 = 0 \rightarrow (t+3)(t-5) = 0 \rightarrow t = -3 \text{ or } t = 5$$

$$t = 5 \rightarrow x^2 - 3 = 5 \rightarrow x^2 = 8 \rightarrow x = \pm 2\sqrt{2}$$

$$x^2 - 3 = -3 \Rightarrow x^2 = 0 \Rightarrow x = 0$$

$$\Rightarrow x = +\sqrt{2}, x = -\sqrt{2}$$

$$x^2 - 14x + m = 0 \rightarrow x_1 = \alpha, x_2 = \beta \rightarrow \alpha + \beta = \frac{-b}{a} = \frac{14}{1} = 14$$

$$\alpha = \beta + 2 \rightarrow \alpha + \beta = 14 \rightarrow \beta + 2 + \beta = 14 \rightarrow 2\beta = 12 \rightarrow \beta = 6$$

$$\alpha = \beta + 2 \rightarrow \alpha = 8 \rightarrow \alpha\beta = 1 \times 8 = \frac{m}{1} \rightarrow m = 8$$

$$m^2 - 4m + m - 1 = 0 \quad \begin{cases} f_1(\tilde{m}) = \alpha \\ f_2(\tilde{m}) = \beta \end{cases} \implies \begin{cases} \alpha + \beta = -\frac{b}{a} = \frac{4}{1} = 4 \\ \alpha\beta = \frac{c}{a} = m - 1 \end{cases} \quad (K)$$

$$\begin{aligned} & \alpha - \beta = r, \quad \alpha + \beta = r \Rightarrow \begin{cases} \alpha - \beta = r \\ \alpha + \beta = r \end{cases} \Rightarrow \begin{array}{l} \alpha - \beta = r \\ \alpha + \beta = r \\ \hline 2\alpha = 2r \\ \alpha = r \end{array} \\ & \alpha = r \Rightarrow \alpha - \beta = r \Rightarrow r - \beta = r \Rightarrow -\beta = 0 \Rightarrow \beta = 0 \\ & \alpha = r, \beta = 0 \Rightarrow \alpha - \beta = r - 0 = r \end{aligned}$$

$$-m a r_0 + m r + m r - r = 0 \xrightarrow{\substack{\text{Differential } \alpha \\ \text{Differential } -\beta}} \alpha = \frac{1}{\beta} \quad \begin{cases} \alpha \beta = \frac{m r - r}{-m} \\ \alpha m = \frac{r}{m} \end{cases} \quad (0)$$

$$\alpha\beta = \frac{m^2 - r}{-m} \xrightarrow{\alpha = \frac{1}{\beta}} \frac{1}{\beta} = \beta = \frac{m^2 - r}{-m} \rightarrow -m = m^2 - r \quad \therefore m^2 + m - r = 0$$

$m^2 + m - r_5 = 0 \rightarrow (m-1)(m+r) = 0 \begin{cases} m=1 \rightarrow -m^2 + m - 1 = 0 \checkmark \\ m = -r \rightarrow r^2 m^2 + m + r = 0 \rightarrow m^2 + m + 1 = 0 \\ (m+1)r = 0 \end{cases} \times$
 $\boxed{m=1}$

$m_1 - m_2 \geq 0$  $\alpha + \beta = -\frac{b}{a} = \alpha + \beta = m$ 14

$\alpha\beta = \frac{p}{q} = \frac{r}{1} \Rightarrow \alpha\beta = r$
 $(\alpha\beta)\beta = r \quad \underline{\alpha\beta = r}$
 $\underline{m = \alpha\beta}$
 $\alpha\beta = \frac{p}{r} \text{ or } \frac{q}{r} = \frac{14, 17}{17} = \frac{17}{17} \quad \underline{\alpha\beta = m}$
 $\boxed{m = \frac{17}{17}}$

$$\alpha + \beta = \frac{-b}{a} = \mu \quad (V)$$

$$\alpha = \kappa \beta \quad \text{---} \quad \alpha + \beta = \kappa \quad \text{---} \quad \kappa \beta + \beta = \kappa \quad \text{---} \quad \kappa \beta = \kappa \quad \text{---} \quad \beta = \frac{(1 - \alpha \beta)(1)}{1 - \alpha \beta + \beta \kappa} \quad (1 - \alpha \beta)(1)$$

$$\alpha \leq r(1) = -1, \alpha = r \rightarrow \alpha \leq r, \beta = 1 \Rightarrow \alpha\beta = 1 \leq r \Rightarrow \alpha\beta \leq r \quad \underline{\alpha\beta = m}$$

$m = r$

$(1 + \frac{1}{r}) \cdot \dots$

$m_T - v_m + \gamma_{59} < \begin{cases} 9 = \text{شماره اول} \\ 9 = \text{شماره دوم} \end{cases}$

$$\Rightarrow \begin{aligned} \alpha + \beta &= -\frac{b}{a} = -1 \\ S &= -1 \\ \alpha\beta &= \frac{c}{a} = 2 \Rightarrow \alpha\beta = 2 \div \alpha, \beta = \frac{2}{\alpha} \\ P &= 2 \end{aligned} \quad (\wedge)$$

$$\alpha^r + \frac{1}{\alpha^r} = \alpha^r + \left(\frac{r}{\alpha}\right)^r \frac{\text{ای، قیل، فنیدن}}{\text{ای، قیل، فنیدن}}, \quad \alpha^r \cdot \frac{r^r}{\alpha^r} = \left(\alpha + \frac{r}{\alpha}\right) \left(\alpha^r - r \cdot \frac{r}{\alpha^r}\right)$$

$$\frac{y}{\alpha} = \beta \quad \rightarrow \quad (\alpha + \beta) / (\alpha^r + \beta^r - r) \quad \frac{\alpha + \beta = v}{\alpha^r + \beta^r - r = (r - r(v)) = 0} \rightarrow \dots$$

$$\Rightarrow \alpha^r_0 \frac{\Lambda}{\alpha^r} = (V)(K^r) = r_0$$

$$h(t) = -1 \cdot t + 0 \cdot t$$

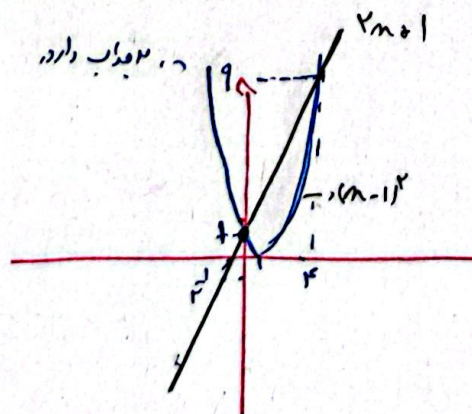
ماکم مقدار تابع $h(t) =$ ارتقاع مالک میوم تدب

$$h(t) = -1.4 + 1.0t + \frac{1.0}{\text{max}} \rightarrow \text{max} \left| \begin{array}{l} \frac{-b}{a} = \frac{-1.0}{-1.4} = \frac{10}{14} \\ \frac{-1}{-1.4} \rightarrow \frac{-1.0}{-1.4} = \frac{10}{14} \end{array} \right.$$

$$\max h(t) = \frac{1r_0}{r} = 4r_0$$

$h(t) = -1 \cdot t + 5 \cdot t = 0$
 $-1 \cdot t + 5 \cdot t = 0 \quad -1 \cdot 2(2-5) = 0$
 $t = 0$ $\checkmark$ $t = 5$ $\checkmark$
 در زمان $t=0$ و $t=5$ بازتاب می‌کند

$(m-1)^2 = m+1$ / الف
 به سبب فرایب m
 $m^2 - 2m + 1 = m + 1$
 $m^2 - 3m = 0$
 $m(m-3) = 0$
 $m \leq 0$
 $m \neq 3$

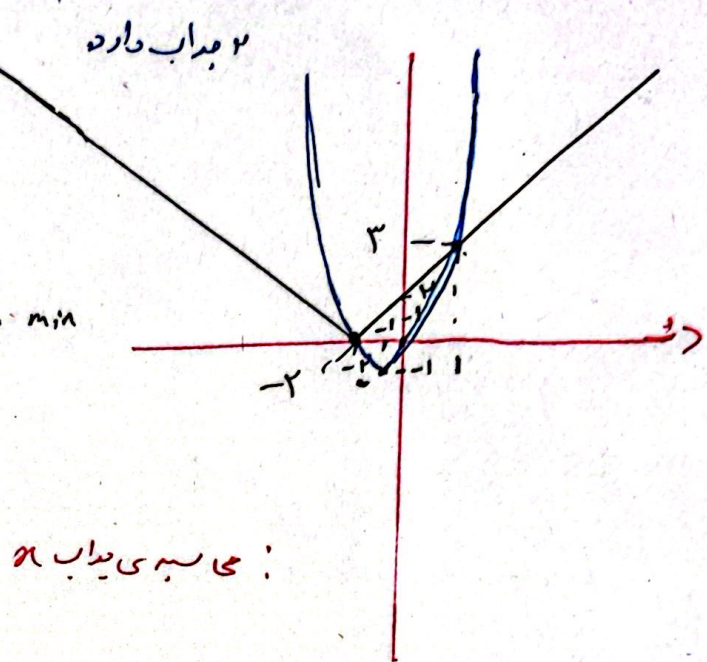


ب) $x^2 + y^2 = 1 \quad (x+2)$

که مقدار $x=2$ که برای $x^2+y^2=1$ که فاصله منفی عدد مثبت را بدست می آید

$f(x) = x^2 + y^2 \rightarrow \text{ext} / \frac{-f}{2} = -1 \quad a > 0 \text{ min}$
 $x^2 + y^2 = 0$
 $x(x-2) = 0$

$x=0 \rightarrow x=2$



یابی بدای x :

$x^2 + y^2 = x + 2$
 $x^2 - x - 2 = 0 \rightarrow x = -2, x = 3$
 $x^2 - x - 2 = 0 \rightarrow x = -2, x = 3$
 $x^2 - x - 2 = 0 \rightarrow x = -2, x = 3$
 $x^2 - x - 2 = 0 \rightarrow x = -2, x = 3$

$x = -2, x = 3$