

$\frac{11}{10}$ $\max = 7 \rightarrow x = -\frac{b}{-r} = \frac{b}{r}$ به دلیل تشابه نام، نام خانوادگی نده نشا (۵) مر باشد
 $y = -x^2 + 4x + c$ $x = 2$
 $y = -x^2 - 4x + c$ $x = -2$
 $y = -\frac{\Delta}{4a} = \frac{5^2 + 1^2}{+4} = 7 \rightarrow b = \pm 4$

(۱) $x = 2 \rightarrow y = 7$ $b = \pm 4$ (۵)
 $x = -2 \rightarrow y = 7$

(۲) $f(x) = x^2 + 2x^2 + c = (x^2 + 1)^2 + 2 = 0 \rightarrow (x+1)^2 = -2$
فاصله، $\frac{p}{2}$

(۳) $f(x) = (2 - x^2)^2 - 2(2 - x^2) - 10$
 $t = 2 - x^2 \rightarrow t^2 - 2t - 10 = 0 \rightarrow (t - 5)(t + 3) = 0$
 $t = 5$
 $t = -3$
 $0 = 2 - x^2 \rightarrow x = \pm \sqrt{2}$
 $-3 = 2 - x^2 \rightarrow x = \pm \sqrt{5}$ (۵)

$\alpha \neq \beta$
 $B = \alpha + 1 \rightarrow \frac{b}{a} = 2\alpha + 1 \rightarrow 2\alpha + 1 = 2 \rightarrow \alpha = 1$
 $\beta = 2$

(۴) $\frac{m}{a} = 1 \times c = \frac{m}{2} \rightarrow m = 12$ (۱۰/۵)
 $\alpha \neq 1$
 $B = c$ $2x^2 - 4x + 11 = 0$
 $\Delta > 0$ ✓

(۵) $3x^2 - 4x + m - 1 = 0$

$\alpha + \beta = \frac{-b}{a} = \frac{4}{3} = 2 \rightarrow \alpha + \beta = 2 \rightarrow 2\alpha + 2\beta = 4$
 $2\alpha = 4 - 2\beta$ (۱۰/۵)

$2\alpha - \beta = 4 \rightarrow 4 - 2\beta - \beta = 4 \rightarrow \begin{cases} \beta = 0 \\ \alpha = 2 \\ \frac{c}{a} = 0 \rightarrow m = 1 \end{cases}$

$3x^2 - 4x = 0 \rightarrow \begin{cases} x = 0 \\ x = \frac{4}{3} \end{cases}$

$2x^2 - 4x = 0$ $\Delta > 0$ ✓

(۶) $-mx^2 + 4x + m^2 - 5 = 0$

$\alpha = \frac{1}{\beta} \rightarrow \alpha\beta = 1 \rightarrow \frac{c}{a} = 1 \rightarrow \frac{m^2 - 5}{-m} = 1$

(۱۲)

$m^2 + m - 5 = 0$
 $(m + 5)(m - 1) = 0 \rightarrow \begin{cases} m = 1 \Delta > 0 \checkmark \\ m = -5 \Delta = 0 \end{cases}$

④ $x'' - mx + r = 0$

$\alpha B^r = \epsilon \rightarrow (\alpha B)B = \epsilon \rightarrow rB = \epsilon \rightarrow B = \frac{\epsilon}{r}$

$\alpha \frac{1}{a} = \epsilon \rightarrow \alpha = \frac{a}{\epsilon}$

$\alpha = \frac{\epsilon}{r}$

$B = \frac{a}{\epsilon}$

$m = \alpha + B = \frac{r}{\epsilon} + \frac{a}{\epsilon}$

$x'' - \frac{r}{\epsilon}x + r = 0 \rightarrow \Delta > 0 \checkmark$

⑤

$x'' - \epsilon x + m = 0$

$\alpha = rB \rightarrow \alpha + B = \epsilon$

$rB + B = \epsilon \rightarrow B = 1 \rightarrow m = \frac{\epsilon}{a} = \alpha B = r$

$m = r$

$x'' - r x + r = 0 \rightarrow \Delta > 0 \checkmark$

⑥

$x'' - vx + r = 0 \quad \alpha B = r \rightarrow B = \frac{r}{\alpha}$

$\alpha'' + \frac{A}{d^2} = \alpha'' + B^r \rightarrow \alpha'' + B^r = (\alpha + B)^r = \alpha B(\alpha + B)$

$\alpha'' + B^r = \sqrt{\epsilon} \cdot C(v) x^r = r_0$

$\alpha'' + \frac{1}{\alpha^2} = r_0$

⑦

$h(t) = -1.5t^2 + 0.5t$



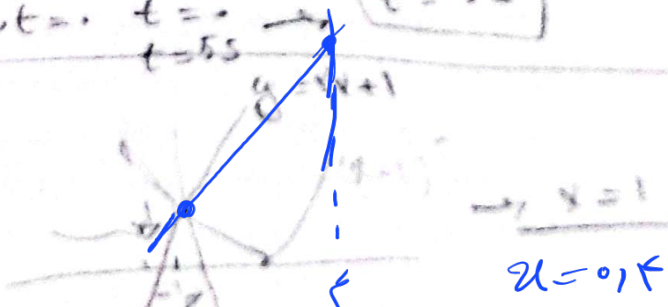
$t_5 = \frac{-b}{2a} = \frac{-0.5}{-3} = 1/6 \rightarrow t_5 = 1/6$

$h_5 = \frac{-D}{4a} = \frac{100}{40} \Rightarrow h_{max} = 2.5 \text{ m}$

عند $h=0 \rightarrow -1.5t^2 + 0.5t = 0 \rightarrow t = 0 \rightarrow t = 1/3$

⑧

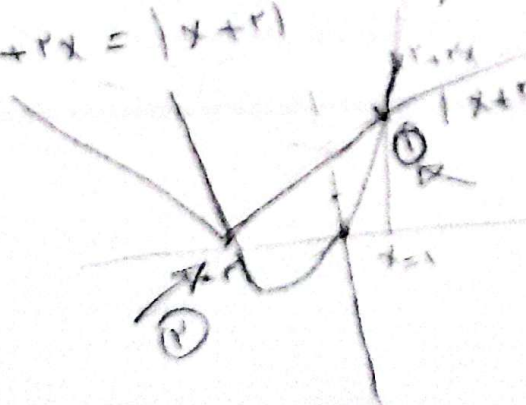
$(x-1)^2 = 2x+1$



$x=1$

⑨

$x^2 + rx = |x+r|$



$x=1$
 $x=-1$