Subject ..... Date .....

عرفان حقیقی یازدهم ریاضی A

۱- $\frac{-\Delta}{4a} = V \Rightarrow \frac{-b^2 - 12}{-4} = V \Rightarrow -b^2 - 12 = -28$

$b^2 + 12 = 28 \Rightarrow b^2 = 16 \quad b \begin{cases} 4 \\ -4 \end{cases}$

۲- الف) $x^2 = t \Rightarrow t^2 + 2t + 3 \Rightarrow \underbrace{(x+2)^2 + 1}_{\text{همواره } \oplus \text{ مثبت}}$

ب) $2 - x^2 = t \Rightarrow t^2 - 2t - 15 = 0 \Rightarrow (t-5)(t+3)$

$+ \begin{cases} 5 \Rightarrow 2 - x^2 = 5 & -x^2 = 1 \text{ غ ق ق} \\ -3 \Rightarrow 2 - x^2 = -3 & -x^2 = -7 \quad x \begin{cases} +\sqrt{7} \\ -\sqrt{7} \end{cases} \end{cases}$

۳-

$\alpha = \beta + 2 \Rightarrow S = 2\beta + 2 = 4 \quad \beta = 1$

$P = \beta^2 + 2\beta \Rightarrow P = 3$

$m = 12$

$x^2 - Sx + P \Rightarrow x^2 - 4x + \frac{m}{4} \Rightarrow 4x^2 - 16x + 12$

$\alpha = 1 \quad \beta = 3$

$S = 2 = \alpha + \beta \Rightarrow -\beta = a - 2$ $\quad a = 2 \;\; \beta = 0$ ✓

$2a - \beta = 2 \Rightarrow 2a + a - 2 = 2 \Rightarrow 3a = 6 \quad a = 2$

$n = 0$

$3m^2 - 6m + m - 1 = 0 \Rightarrow m - 1 = 0 \Rightarrow m = 1$

(a

$P = \frac{c}{a} = 1 \Rightarrow \frac{m^2 - 2}{1 - m} = 1 \Rightarrow m^2 - 2 = -m$

$m^2 + m - 2 = 0 \quad m \begin{cases} 1 \\ -2 \end{cases}$

(b

$P = 2 = \alpha\beta \Rightarrow \alpha = \frac{2}{\beta}$ $\quad \alpha = \frac{9}{6}$

$\alpha\beta^2 = 6 \Rightarrow \frac{2}{\beta} \times \beta \times \beta = 6 \Rightarrow 2\beta = 6 \Rightarrow \beta = \frac{6}{2}$

$\alpha + \beta = \frac{9}{6} + \frac{6}{2} = \frac{27 + 18}{12} = \frac{6 \cdot 2}{12} = \frac{m}{1}$

$m = \frac{6 \cdot 2}{12}$

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۱۰

$\alpha = 3\beta \Rightarrow \alpha + \beta = 4 \Rightarrow 3\beta + \beta = 4 \Rightarrow \beta = 1$

$\alpha = 3 \Rightarrow p = 3 = \frac{m}{1} \Rightarrow \boxed{m = 3}$

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$\left(\alpha + \frac{2}{9}\right)^3 - 3\alpha\left(\frac{2}{9}\right)$

$\left(\alpha + \frac{2}{9}\right)^3 - 3\alpha\left(\frac{2}{9}\right)\left(\alpha + \frac{2}{\alpha}\right) \Rightarrow \left(\alpha + \frac{2}{\alpha}\right)^2 - 6\left(\frac{\alpha^2+2}{9}\right)$

$\alpha^2+2 = 7\alpha$

$\frac{\alpha^2+2}{\alpha} - 6\left(\frac{\alpha^2+2}{9}\right) \Rightarrow \frac{7\alpha}{\alpha} - 6\left(\frac{7\alpha}{\alpha}\right)$

$7 - 42 = -35$

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$max = \left| \frac{-b}{2a} = \frac{-20}{-10} = 2\omega \right.$

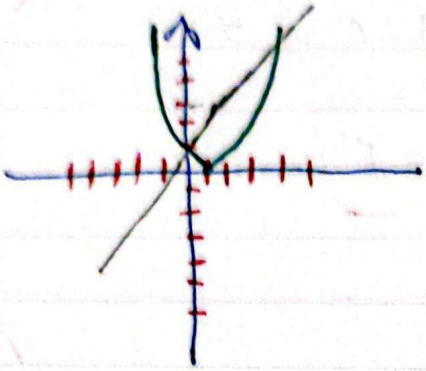
$\boxed{42,\omega \text{ max ارتفاع توپ}}$

$-10t^2 + 20t = 0 \Rightarrow -10t(t - 2) \rightarrow t \begin{cases} 0 \text{ غ ق ق} \\ 2\omega \checkmark \end{cases}$

لحظه برخورد

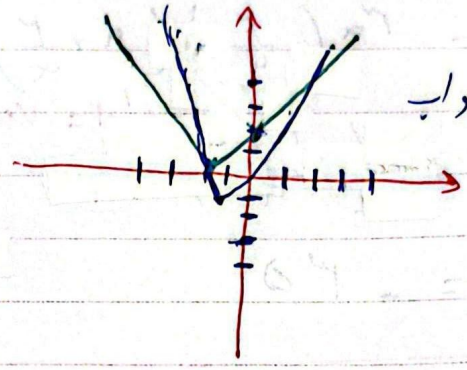
۱.

الف)



جواب ۲ x ۴

ب)



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