

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۱۴ کلاس
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$$y = -u^2 + bu + 3 \Rightarrow y_{\max} = 11$$

$$y_{\max} = \frac{-\Delta}{2a} \Rightarrow 11 = \frac{-(b^2 - 12)}{2 \times (-1)} = \frac{-b^2 + 12}{-2} \Rightarrow -b^2 + 12 = -22 \Rightarrow -b^2 = -34 \Rightarrow b^2 = 34 \Rightarrow b = \pm \sqrt{34}$$

که جواب

$$\Delta = b^2 - 4ac \Rightarrow \Delta = b^2 - (2 \times (-1) \times 3) \Rightarrow \Delta = b^2 - 12$$

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الف) $f(u) = u^2 + 2u + 3 \Rightarrow u^2 = t$

$$t^2 + 2t + 3 = 0 \Rightarrow u = \frac{-b \pm \sqrt{\Delta}}{2a} \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 4 - (4 \times 1 \times 3) < 0 \Rightarrow$$

معادله درجه دوم حقیقی ندارد - جواب

ب) $f(u) = (2 - u^2)^2 - 2(2 - u^2) - 1 = 0 \Rightarrow 2 - u^2 = t$

$$t^2 - 2t - 1 = 0 \Rightarrow (t - 1)(t + 1) = 0 \Rightarrow t = 1 \Rightarrow 2 - u^2 = 1 \Rightarrow u^2 = 1 \Rightarrow u = \pm 1$$

$$t = -1 \Rightarrow 2 - u^2 = -1 \Rightarrow u^2 = 3 \Rightarrow u = \pm \sqrt{3}$$

که جواب

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* درجه های معادله در α و β حرفی می باشد

$$\alpha + 2 = \beta \Rightarrow 1 + 2 = 3 = \beta$$

$$2u^2 - 14u + m = 0 \Rightarrow S = -\frac{b}{a} = 7, P = \frac{c}{a} = \frac{m}{2}$$

$$S = \alpha + \beta \Rightarrow 7 = \alpha + (\alpha + 2) = 2\alpha + 2 \Rightarrow 2\alpha = 5 \Rightarrow \alpha = \frac{5}{2}$$

* جواب

$$P = \alpha\beta \Rightarrow 3 \times 1 = 3 = \frac{m}{2} \Rightarrow m = 6$$

$$\xrightarrow{m=6} 2u^2 - 14u + 6 = 0 \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 196 - (4 \times 2 \times 6) > 0 \checkmark$$

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$$3u^2 - 4u + m - 1 = 0, 2\alpha - \beta = 4 \Rightarrow S = -\frac{b}{a} = 2, P = \frac{c}{a} = \frac{-1+m}{3}$$

$$2\alpha - \beta = 4 \Rightarrow \beta = 2\alpha - 4 \Rightarrow \beta = 2 \times 2 - 4 = 0 = \beta$$

$$S = \alpha + \beta \Rightarrow \alpha + (2\alpha - 4) = 3\alpha - 4 = 2 \Rightarrow 3\alpha = 6 \Rightarrow \alpha = 2$$

* جواب

$$P = \alpha\beta \Rightarrow \frac{2 \times 0}{3} = \frac{-1+m}{3} = 0 \Rightarrow m - 1 = 0 \Rightarrow m = 1$$

$$\xrightarrow{m=1} 3u^2 - 4u = 0 \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 16 - (12 \times 3 \times 0) > 0 \checkmark$$

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* برای اینکه α و β معکوس باشند باید حاصل ضرب آنی مساوی یک باشد - $\alpha = \frac{1}{\beta}$

$$P = \frac{c}{a} = \frac{1}{\beta} \times \beta = 1$$

$$-mu^2 + 4u + m^2 - 2 = 0 \Rightarrow P = \frac{c}{a} = 1 \Rightarrow \frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 - 2 = -m \Rightarrow m^2 + m - 2 = 0$$

جواب

$$\xrightarrow{m=1} u = \frac{c}{a} = -2 \Rightarrow \frac{m=1}{m=-2}$$

$$m=1 \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = -4 + 4m - 2 = 0 \Rightarrow 14 - 2 = 12 > 0 \checkmark$$

$$m=-2 \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 0 \Rightarrow 14 - 14 = 0 \times \rightarrow$$

* چون می شود دیگر
 هیچ ضابطه ای
 نمی شود

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$$u'' - mu + W = 0, \quad \alpha\beta' = r$$

$$\hookrightarrow p = \frac{c}{a} = r, S = -\frac{b}{a} = m$$

$$\alpha \beta^2 = \kappa \Rightarrow \frac{\alpha \times \beta \times \beta}{\kappa} = \kappa \Rightarrow \beta = \frac{\kappa}{\kappa} \quad , \quad \alpha \beta^2 = \kappa \Rightarrow \left(\frac{\kappa}{\kappa} \right)^2 \times \alpha = \kappa \Rightarrow \alpha = \kappa \times \frac{\kappa}{\kappa} = \frac{\kappa}{\kappa}$$

$$\alpha + \beta = S = m \Rightarrow \frac{q}{e} + \frac{e}{e} = \frac{e^2}{12} = m \rightarrow \text{جواب}$$

$$u^r - mu + v = c \Rightarrow u^r - \frac{2c}{1r} u + v = c \Rightarrow \Delta = b^r - 2ac \Rightarrow \Delta = \left(\frac{-2c}{1r}\right)^r - \left(\frac{2c}{1r} \times c\right) > 0 \checkmark$$

$$u'' - \varepsilon u + m = 0$$

$$S = -\frac{b}{a} \approx K, \rho = m$$

$$S = \alpha + \beta = \psi\beta + \beta \cdot \kappa \Rightarrow \kappa\beta = \kappa \Rightarrow \underline{\beta = 1}$$

$$\alpha = \psi\beta \Rightarrow \psi \times 1 = \underline{\psi = \alpha}$$

$$\rho = \alpha \cdot \beta = m \Rightarrow \mathbb{N} \times 1 = \boxed{\mathbb{N} = m} \Rightarrow \cup \times$$

$$u'' - 2u + v = 0 \Rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 17 - (2 \times 1 \times 3) > 0 \checkmark$$

$\alpha \neq \beta$ و β و β^2 معای واحد اند $\Rightarrow \alpha = \beta^2$

$$u'' - Vu + \gamma = 0$$

$$\alpha\beta = p = r \Rightarrow \beta = \frac{r}{\alpha}$$

$$S_c = \frac{b}{a} = 2 \text{ V}$$

$$\alpha^k + \frac{1}{\alpha^k} = \left(\alpha + \frac{\gamma}{\beta \alpha} \right)^k - \gamma \left(\alpha + \frac{\gamma}{\beta \alpha} \right)$$

$$(\alpha + \beta)^n - \gamma(\alpha + \beta) = \gamma \in \mathbb{N} - \mathbb{Z} \Rightarrow \gamma \in \mathbb{Q} \rightarrow \text{ب.ج.}$$

$$h(t) = -\frac{1}{2}gt^2 + v_0t + h_0$$

$$h_{\max} = -\frac{\Delta}{\varepsilon a} \Rightarrow h_{\max} = \frac{-2500}{-20} = \frac{2500}{2} = \boxed{1250} \Rightarrow \text{جواب}$$

$$\Delta = b^2 - 4ac = 400 - (2 \times -1 \times 9) = 409$$

زمانی که به زمین برخورد کند

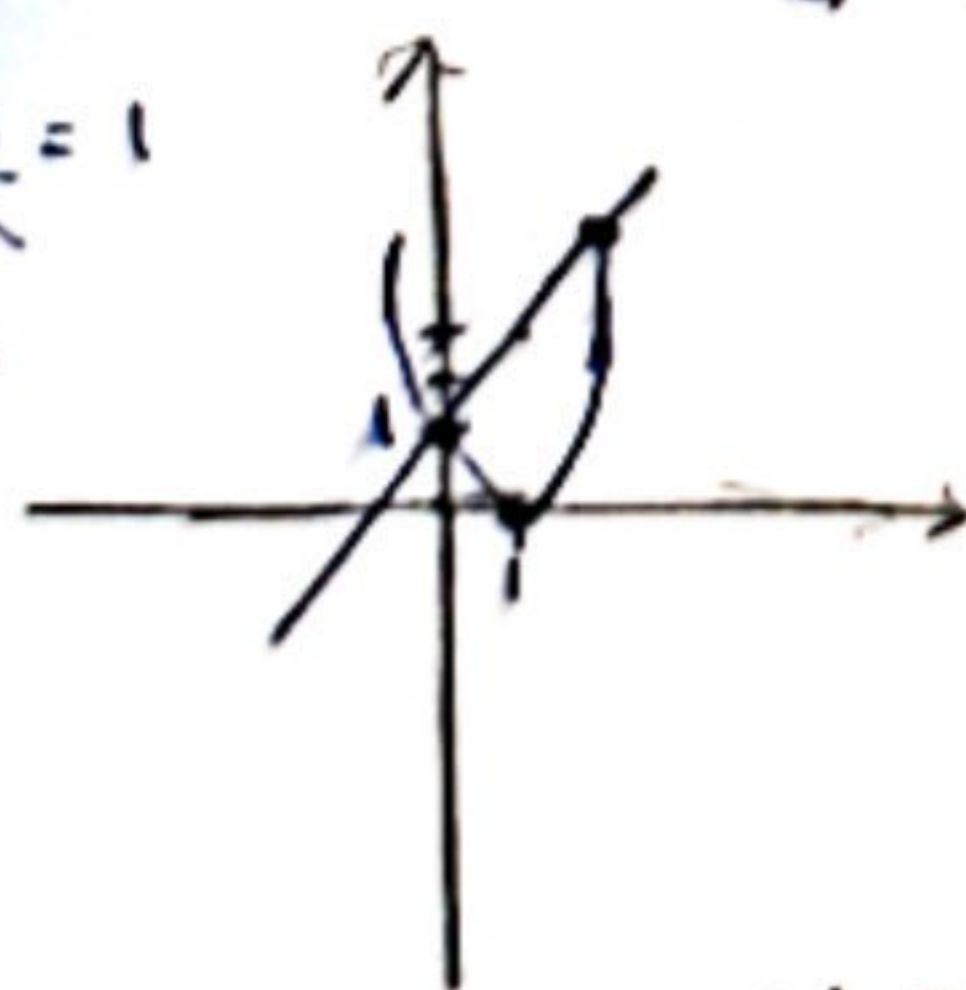
$$-10t^2 + 50t = 0 \Rightarrow 10t(-t + 5) \quad \left[\begin{array}{l} t=0 \\ t=+5 \end{array} \right] \rightarrow \text{که چنان}$$

زمانی که به زمین برخورد

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

$$\Rightarrow u^Y + 1 - Yu = Yu + 1$$

$$\text{ent} \left| \begin{array}{l} u_2 = \frac{b}{ra} = 1 \\ y_2 = 0 \end{array} \right.$$



$$\frac{u}{z} \mid \frac{v}{1} \mid \frac{1}{u}$$

$$u^p - pu + 1 = pu +$$

u^y-2u^z9

$$u(u-1) = 0$$

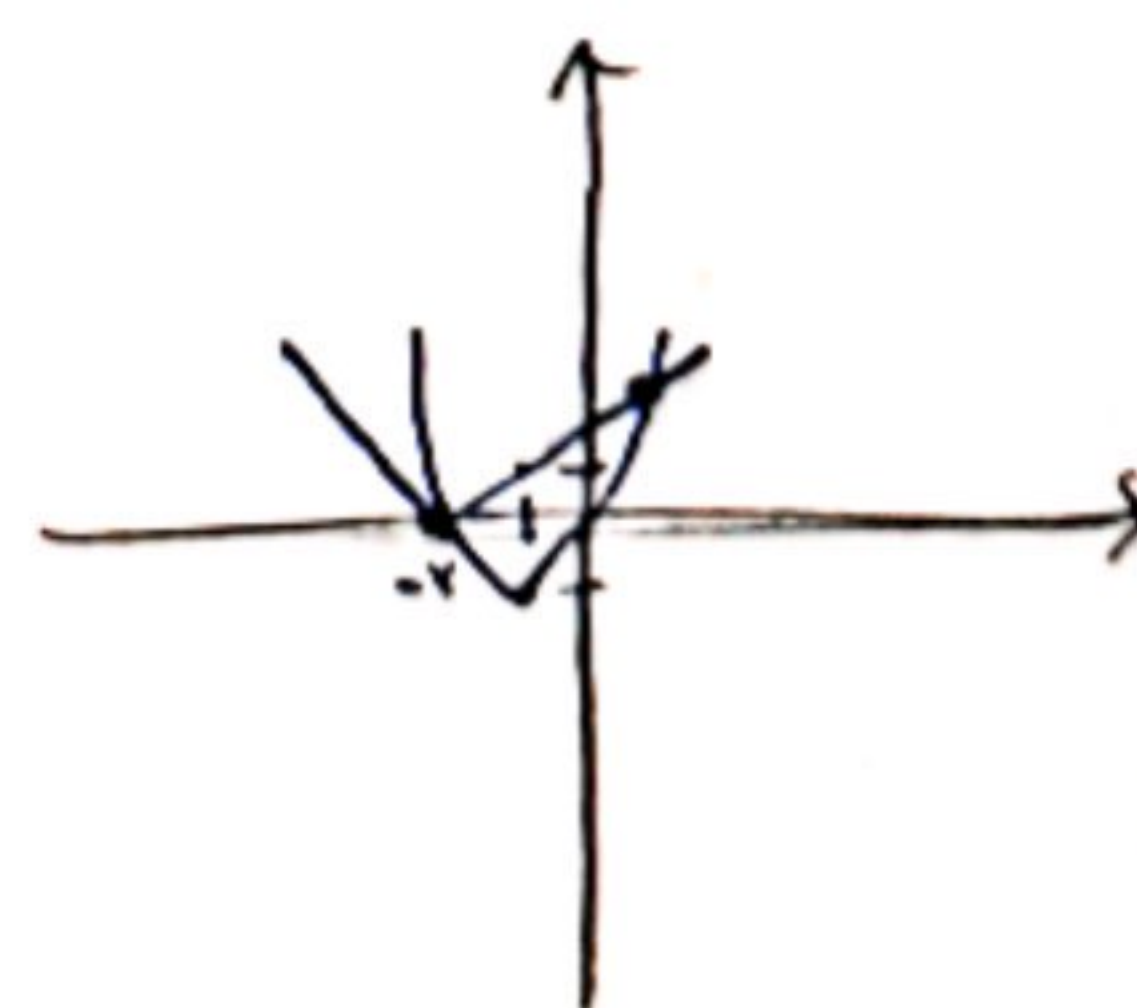
$$\overline{u_{\varepsilon_9}}, \overline{u_{\varepsilon_8}}$$

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$$\hookrightarrow) u^r + ru = (u + r)$$

$$\overline{u \cdot x - 1}, \overline{u \cdot x} =$$

$\text{let } u = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
 $y = -1$
 $\boxed{u = -1}, \boxed{u = 1} \Rightarrow$



$$+y = 14 + x1$$

