

نام و نام خانوادگی نازنین کریمی پاسخنامه تشریحی تکلیف شماره ۱۴... کلاس... یازدهم... دفتر... A

$$\frac{-D}{Ea} = V \Rightarrow \frac{Eac - b^2}{Ea} = V \Rightarrow Eac - b^2 = 21a \xrightarrow{a=-1}$$

$$E \times (-1) \times c - b^2 = -21 \Rightarrow b^2 = 14 \rightarrow b \begin{cases} +\sqrt{14} \\ -\sqrt{14} \end{cases}$$

$$y = -x^2 + 4x + 3 \quad \Delta > 0 \checkmark$$

$$y = -x^2 - 4x + 3 \quad \Delta > 0 \checkmark$$

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اگر $x^2 = t \Rightarrow t^2 + 2t + 3 = 0 \Rightarrow \Delta < 0$ ریشه ندارد.

ب) $(E - x^2) = t \Rightarrow t^2 - 2t - 15 = 0 \Rightarrow (t + 3)(t - 5) = 0 \Rightarrow t \begin{cases} -3 \\ 5 \end{cases}$

$E - x^2 = 5 \Rightarrow x^2 = -1$ غیرممکن

$E - x^2 = -3 \Rightarrow x^2 = 7 \Rightarrow x \begin{cases} +\sqrt{7} \\ -\sqrt{7} \end{cases}$

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$$\beta = \alpha + 2$$

$$s = \frac{-b}{a}$$

$$p = \frac{c}{a}$$

$$\alpha + \beta \Rightarrow 2\alpha + 2 = 4 \Rightarrow 2\alpha = 2 \Rightarrow \boxed{\alpha = 1} \quad \boxed{\beta = 3}$$

$$\alpha \cdot \beta = \frac{c}{a} \Rightarrow 1 \times 3 = \frac{m}{c} \Rightarrow \boxed{m = 12}$$

$$E_n^2 - 14n + 12 = 0 \quad \Delta > 0 \checkmark$$

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$$2\alpha - 5 = \beta$$

$$\alpha \cdot \beta = \frac{m-1}{2} = 0 \Rightarrow m-1 = 0 \Rightarrow \boxed{m=1}$$

$$\alpha + \beta = 2 \Rightarrow 4\alpha - 5 = 2 \Rightarrow 4\alpha = 7 \Rightarrow \boxed{\alpha = 2} \quad \boxed{\beta = 0}$$

$$E_n^2 - 4n = 0 \quad \Delta > 0 \checkmark$$

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$$\beta = \frac{1}{\alpha} \Rightarrow \alpha \cdot \beta = 1$$

$$\alpha \cdot \beta = 1 \Rightarrow \frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 - 2 = -m \Rightarrow m^2 + m - 2 = 0$$

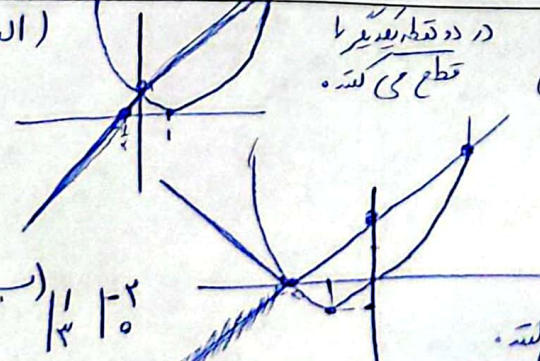
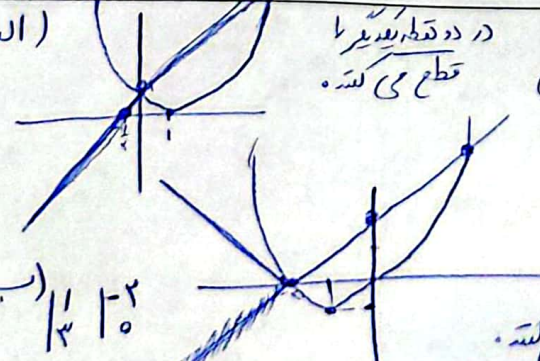
$$(m-1)(m+2) = 0 \Rightarrow m \begin{cases} -2 \\ 1 \end{cases}$$

$$n \Rightarrow -2 \Rightarrow 2x^2 + 4x + 5 - 2 = 0 \Rightarrow 2x^2 + 4x + 3 = 0 \quad \Delta < 0 \checkmark$$

$$m \Rightarrow 1 \Rightarrow -x^2 + 4x + 1 - 2 = 0 \Rightarrow -x^2 + 4x - 1 = 0 \quad \Delta > 0 \checkmark$$

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$x^2 - mx + c = 0$ $\alpha\beta = c \Rightarrow \alpha\beta(\beta) = c \Rightarrow \boxed{\beta = \frac{c}{\alpha}} \rightarrow \frac{c}{\alpha} \times \frac{c}{\alpha} \times \alpha = c \Rightarrow \frac{c^1}{\alpha} \alpha = c \Rightarrow \boxed{\alpha = \frac{c}{\alpha}}$ $\boxed{\alpha \cdot \beta = c}$ $\alpha + \beta = -\frac{b}{a} \Rightarrow m \Rightarrow \frac{9}{\alpha} + \frac{c}{\alpha} = \frac{27+12}{12} = \frac{39}{12}$ $\frac{-b}{a} \Rightarrow \frac{-b}{1} = \frac{39}{12} \Rightarrow \boxed{b = -\frac{39}{12} = m}$ $x^2 - \frac{39}{12}x + \frac{1}{12} \Delta \gamma \checkmark$	6
$\beta = c\alpha$ $\alpha + \beta = c \Rightarrow c\alpha = c \Rightarrow \boxed{\alpha = 1} \quad \boxed{\beta = c}$ $\alpha \cdot \beta = m \Rightarrow 1 \times c = m \Rightarrow \boxed{m = c}$ $x^2 - cx + c \Delta \gamma \checkmark$	7
$\alpha^2 + \frac{1}{\alpha^2} \Rightarrow (\alpha + \frac{1}{\alpha})(\alpha^2 + \frac{1}{\alpha^2} - 2) \Rightarrow$ $\boxed{\alpha + \beta = 1} \quad (\alpha + \beta)(\alpha^2 + \beta^2 - 2) \Rightarrow$ $\boxed{\alpha \cdot \beta = 2} \quad (-\frac{b}{a})(\alpha^2 + \beta^2 - 2) \Rightarrow (1)(\alpha^2 + \beta^2 - 2) = 5$ $\alpha = \frac{2}{\beta} \quad (-\frac{b}{a})(\alpha^2 + \beta^2 - 2) \Rightarrow (1)(\alpha^2 + \beta^2 - 2) = 5$ $\beta = \frac{2}{\alpha} \quad (1)(\alpha^2 + \beta^2 - 2) \Rightarrow \boxed{201}$	8
$\text{ارتفاع} \Rightarrow \frac{\Delta}{\epsilon_0} \Rightarrow \frac{\epsilon_0 c - b^2}{\epsilon_0} = \frac{\epsilon_0 x - 10 \times 9 - 2500}{- \epsilon_0} = \frac{2500}{\epsilon_0} = \boxed{62.5}$ زمانی که برای ارتفاع می شود. $\Rightarrow h(t) = -10t^2 + 250t \Rightarrow -10t^2 + 250t = 0 \Rightarrow t^2 - 25t = 0$ $(t)(t - 25) = 0 \Rightarrow t < \begin{matrix} 0 \text{ و } 25 \end{matrix}$	9
الف)  در دو نقطه برش قطع می کند. $(x-1)^2 = 2x+1 \Rightarrow x^2 - 4x = 0$ $(x)(x-4) = 0 \Rightarrow x < \begin{matrix} 0 \text{ و } 4 \end{matrix}$ ب)  در دو نقطه برش قطع می کند. $x^2 + 2x = 1 \Rightarrow x^2 + 2x - 1 = 0$ $x > 2 \quad x^2 + 2x - 1 = 0 \Rightarrow x < \begin{matrix} -1 \text{ و } 1 \end{matrix}$ $x < 2 \quad x^2 + 2x - 1 = 0 \Rightarrow x < \begin{matrix} -1 \text{ و } 1 \end{matrix}$	10