

یازدهم دفتر C

حسین بزرگ

19

تکلیف شماره 14

$$y_{max} = \frac{-\Delta}{\varepsilon a} \Rightarrow \frac{-(b^2 + 12)}{-\varepsilon} = 1 \rightarrow b^2 + 12 = 11 \rightarrow b^2 = -1 \rightarrow \boxed{b = \pm \varepsilon} \quad (1) \quad (2)$$

$$a^2 = t$$

$$b) \quad \varepsilon - a^2 = t \quad (2)$$

$$t^2 + 2t + 3 = 0 \rightarrow \Delta = -1$$

$$t^2 - 2t - 15 = 0 \rightarrow (t-5)(t+3) = 0 \quad (3)$$

$$\Delta < 0 \rightarrow \boxed{\text{ریشه حقیقی ندارد}}$$

$$t = 5 \rightarrow \varepsilon - a^2 - 2 = 0 \rightarrow a^2 = -1 \rightarrow \text{غیر ممکن}$$

$$t = -3 \rightarrow \varepsilon - a^2 + 3 = 0 \rightarrow a^2 = 1 \rightarrow \boxed{a = \pm \sqrt{1}}$$

$$3a^2 - 14a + m = 0$$

$$a + 2 \text{ و } a < 0 \quad (3)_{10}$$

$$S = a + a + 2 \rightarrow 2a + 2 = \frac{-b}{a} \rightarrow 2a + 2 = \varepsilon \rightarrow a = \frac{\varepsilon - 2}{2}, a + 2 = \frac{\varepsilon}{2} \quad (11)$$

$$P = \frac{c}{a} \Rightarrow \frac{m}{\varepsilon} = 2 \Rightarrow \boxed{m = 12}$$

$$3a^2 - 14a + 12 = 0 \rightarrow \Delta = 100$$

$$(1, 12) \quad (12)$$

$$3a^2 - 14a + m - 1 = 0$$

$$(4)_{14}$$

$$2a - \beta = \varepsilon \rightarrow \beta = 2a - \varepsilon$$

$$S = \frac{-b}{a} \rightarrow a + \beta = 2 \rightarrow a + 2a - \varepsilon = 2 \rightarrow a = \frac{2 + \varepsilon}{3}$$

$$\beta = 2 \times \frac{2 + \varepsilon}{3} - \varepsilon = 0$$

$$P = \frac{c}{a} \rightarrow \frac{m-1}{\varepsilon} = 0 \rightarrow m-1 = 0 \rightarrow \boxed{m=1}$$

$$a\beta = 2 \times 0 = 0$$

$$3a^2 - 14a = 0 \rightarrow \Delta = 196$$

$$(1, 17) \quad (17)$$

$$-m a^2 + \varepsilon a + m^2 - 2 = 0$$

$$(5)_{19}$$

$$P = 1 \rightarrow \frac{c}{a} = 1 \rightarrow \frac{m^2 - 2}{-m} = 1 \rightarrow m^2 + m - 2 = 0 \rightarrow (m+2)(m-1) = 0$$

$$\boxed{m=1} \rightarrow -a^2 + \varepsilon a - 1 = 0 \rightarrow \Delta < 0$$

$$(2) \quad (21)$$

$$m = -2 \rightarrow 2a^2 + \varepsilon a + 2 = 0 \rightarrow \Delta < 0 \rightarrow \text{غیر ممکن}$$

$$(23)$$

$$z^2 - mz + c = 0 \quad \alpha/\beta^2 = \xi \quad p = \frac{c}{a} = 3 \quad (6)$$

$$\alpha/\beta \times \beta = 3/\beta = \xi \rightarrow \beta = \frac{\xi}{c}, \quad \alpha = \frac{9}{\xi}$$

$$S = \frac{9}{\xi} + \frac{\xi}{c} = \frac{\xi c}{12} = m \quad z^2 - \frac{9}{\xi}z + \frac{\xi}{c} = 0 \quad \Delta \geq 0 \quad (1, 1, 0)$$

$$z^2 - \xi z + m = 0 \quad \alpha = 3/\beta \quad S = \frac{-b}{a} = \xi \quad (7)$$

$$S = \beta + 3/\beta = \xi/\beta = \xi \rightarrow \beta = 1, \alpha = c \quad \alpha \times \beta = c \quad (1, 1, 0)$$

$$P = \frac{c}{a} \rightarrow c = \frac{m}{1} \rightarrow m = c \quad z^2 - \xi z + c = 0 \quad \Delta \geq 0 \quad (1, 1, 0)$$

$$\alpha^2 + \frac{1}{\alpha^2} = (\alpha)^2 + \left(\frac{1}{\alpha}\right)^2 = \left(\alpha + \frac{1}{\alpha}\right) \left(\alpha^2 + \frac{\xi}{\alpha^2} - 1\right) \quad (8)$$

$$\rightarrow \alpha + \frac{1}{\alpha} = \frac{\alpha^2 + 1}{\alpha} = \frac{V\alpha}{\alpha} = V \quad z^2 - Vz + 1 \rightarrow \alpha^2 - V\alpha + 1 = 0$$

$$\rightarrow \alpha^2 + \frac{\xi}{\alpha^2} = \frac{\alpha^2 + \xi}{\alpha^2} \Rightarrow \frac{(\alpha^2 + 1)^2 - \xi\alpha^2}{\alpha^2} = \frac{(\alpha^2 + 1)^2}{\alpha^2} - \frac{\xi\alpha^2}{\alpha^2} = \xi^2 - \xi = \xi\Delta$$

$$\left(\alpha + \frac{1}{\alpha}\right) \left(\alpha^2 + \frac{\xi}{\alpha^2} - 1\right) = V \times (\xi\Delta - 1) = (3 \cdot 1)$$

$$z_5 = \frac{-b}{2a} = \frac{-20}{-2} = \frac{10}{1} \quad -10t^2 + 20t = 0 \quad (9)$$

$$+ (-10t + 20) = 0 \rightarrow t = 0$$

$$y_5 = -10\left(\frac{10}{1}\right) + 20\left(\frac{10}{1}\right) = \frac{60}{1} \rightarrow \text{ارتفاع} \quad (t = 0.5)$$

$$\text{الف) } (x-1)^2 = 2x+1$$

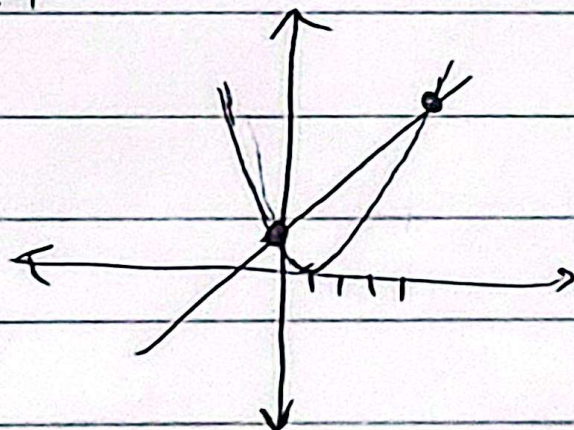
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$$x^2 - 2x + 1 = 2x + 1$$

$$x^2 - 4x = 0$$

$$x(x-4) = 0$$

$$x = 0, x = 4$$



دو جواب

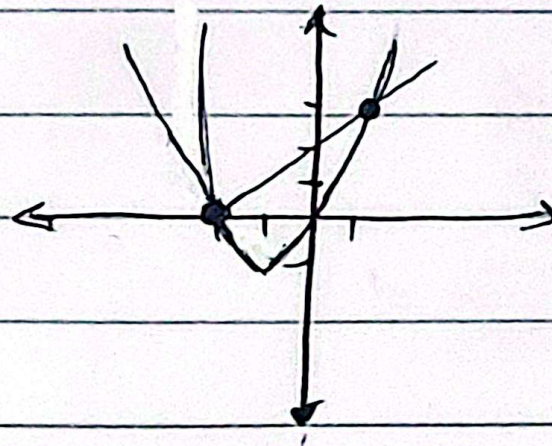
$$\text{ب) } x^2 + 2x = |x+2|$$

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$$x^2 + 2x - 2 = 0$$

$$x^2 + 2x - 2 = 0$$

$$x = -1, 1$$



دو جواب