

Subject:

نام خانوادگی: ندیم حسین
شماره تلفن: ۱۲

Date:

(19, 8)

$$-\frac{\Delta}{F_a} = -V \rightarrow -b^2 - 12 = -18 \Rightarrow b^2 = 14 \rightarrow b = \pm \sqrt{14} \quad (1)$$

$$x^2 = c \rightarrow x^2 + 2x + 3 = 0 \rightarrow \Delta < 0 \rightarrow \text{جواب ندارد} \quad (2)$$

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

$$x^2 - 2x = 5 \rightarrow -x^2 = 1 \rightarrow x^2 = -1 \times, \quad x^2 - 2x = -3 \rightarrow -x^2 = -1 \rightarrow x = \pm \sqrt{1} \quad (4)$$

$$\alpha + 2 = \beta \rightarrow S = \alpha + \alpha + 2 = \frac{-b}{a} = \frac{14}{1} = 14 \rightarrow \quad (5)$$

$$2\alpha + 2 = \beta \Rightarrow \alpha = 1, \beta = 3 \rightarrow p = \frac{c}{a} = \frac{1}{1} = 1 \rightarrow \frac{m}{1} = 1 \Rightarrow m = 1$$

$$m = 12, \Delta > 0 \rightarrow 2 \times 4 - 14m > 0 \Rightarrow 14m < 8 \rightarrow m < 14 \checkmark$$

$$\beta = 2a - f \rightarrow S = a + 2a - f = 2 \rightarrow 3a = 4 \rightarrow a = \frac{4}{3}$$

$$\rightarrow \beta = 0 \rightarrow p = \frac{m-1}{m} = 0 \rightarrow m-1=0 \Rightarrow m=1 \checkmark$$

$$\Delta > 0 \rightarrow 34 - 12m + 12 > 0 \Rightarrow -12m > -46 \Rightarrow m < \frac{23}{6}$$

$$\frac{c}{a} = 1 \rightarrow \frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 + m - 2 = 0 \Rightarrow \underline{m = 1}, m = -2 \quad (6)$$

$$\rightarrow m = 1 \rightarrow -x^2 + 2x - 1 = 0 \rightarrow \Delta > 0 \checkmark$$

$$\rightarrow m = -2 \rightarrow 2m^2 + 2m + 2 = 0 \rightarrow \Delta = 0 \times$$

$$\alpha = \frac{p}{\beta^2} \rightarrow p = \frac{c}{a} = \alpha \beta \Rightarrow \frac{c}{a} = \frac{p}{\beta^2} \times \beta \rightarrow \beta = \frac{p}{\frac{c}{a}} = \frac{pa}{c}$$

$$\alpha = \frac{9}{9} \rightarrow S = \frac{p}{m} + \frac{9}{p} = m \Rightarrow m = \frac{p^2}{12} \quad (7)$$

$$2x^2 - \frac{4 \times 12}{12} + 2 = 0 \rightarrow \Delta > 0 \checkmark$$

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$$\alpha = \sqrt{3}\beta \rightarrow S = \sqrt{3}\beta + \beta = \sqrt{3} \Rightarrow \beta = 1, \alpha = \sqrt{3} \rightarrow$$

$$m = \alpha\beta = \sqrt{3}$$

$$x^2 - \sqrt{3}x + \sqrt{3} = 0 \checkmark$$

$$a^2 + \frac{1}{a^2} = \left(a + \frac{1}{a}\right) \left(a^2 - 1 + \frac{1}{a^2}\right) \rightarrow (a + \beta)(a^2 + \beta^2 - 1)$$

$$1)(\sqrt{3} - 1 - 1) = \sqrt{3} \checkmark$$

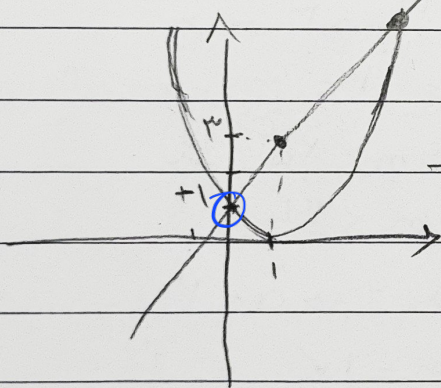
$$p \leq r \leq \alpha\beta \Rightarrow a \leq \frac{1}{\beta}$$

$$h(t) = 10t(-t + 4) \xrightarrow{\text{دسته بندی}} h(t) \text{ so } \rightarrow 10t(4 - t) \text{ so } \rightarrow$$

$$t = 0 \text{ s}, t = 4 \text{ s}$$

$$h_{\max} = -\frac{\Delta}{2a} = -\frac{-40 \times 40}{2 \times (-10)} = 80 \text{ m}$$

الف)



جواب

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

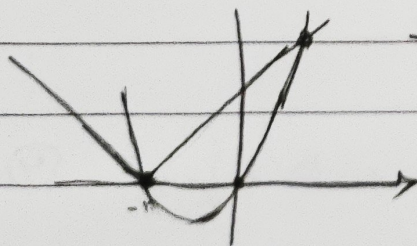
$$x^2 - 2m = 0 \rightarrow$$

$$m(m - 1) = 0 \rightarrow$$

$$(0, 1) (1, 1)$$

$$b) x^2 + 2m = n + 1 \rightarrow x^2 + n - 1 = 0 \rightarrow (n = 1, n = -1) \quad x > -1$$

$$x^2 + 2m = -n + 1 \rightarrow x^2 + 2m + n = 0 \rightarrow n = -1, n = -1 \quad x < -1$$



$$\rightarrow \text{جواب} \rightarrow (-1, 0) (1, 0)$$