

$$ax^2 - vx + 9B = 0$$

$$P = aB = \frac{9B}{a} \rightarrow a = \frac{9}{a} \rightarrow a \cdot \frac{9}{a} = 9 \rightarrow \frac{a^2 - 9}{a} = 0 \rightarrow a = \pm 3$$

$$a = +3 \rightarrow v + B = \frac{v}{\mu} \rightarrow B = -\frac{v}{\mu} x$$

$$a = -3 \rightarrow -v + B = -\frac{v}{\mu} \rightarrow B = \frac{v}{\mu} \checkmark$$

$$\frac{1}{a} + \frac{1}{B} \rightarrow \frac{1}{-3} + \frac{1}{\frac{v}{\mu}} = -\frac{1}{3} + \frac{\mu}{v} = \frac{v}{v}$$

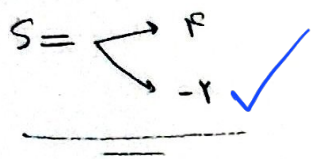
$$x^2 + mx - 1m = 0, \quad a^2 - mB = 1$$

$$B^2 - 1m = -mB \rightarrow a^2 + B^2 - 1m = 1 \rightarrow m^2 + \varepsilon m - 1m = 1 \rightarrow m^2 + \varepsilon m - 1 = 0$$

$$a^2 + B^2 = 5 - 1P \rightarrow m^2 + \varepsilon m$$

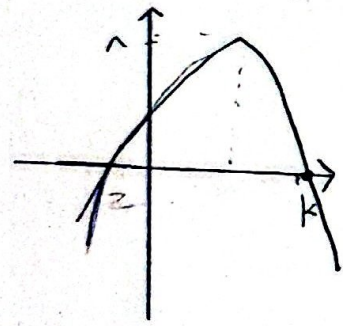
$$S = m$$

$$P = -1m$$



$$-(m + \varepsilon)(m - 1) = 0$$

$\begin{matrix} \textcircled{-1} \\ \text{D} \cdot \text{X} \end{matrix}$
 $\begin{matrix} \textcircled{1} \\ \text{D} \cdot \text{v} \end{matrix}$



$$f(x) = mx^2 + \varepsilon x + \frac{m}{\varepsilon} + 1 \rightarrow -1x^2 + \varepsilon x + 4 = 0 \Rightarrow x^2 - \varepsilon x - 4 = 0$$

$$\frac{-1}{\varepsilon a^2} = 1 \rightarrow 14 - 1m(\frac{m}{\varepsilon} + 1) = -1 \rightarrow 14 - 1m^2 - 1m = -1 \Rightarrow 15 - 1m^2 - 1m = 0$$

$$\Delta > 0 \rightarrow 15 - 1m^2 - 1m \rightarrow m = \varepsilon + 14 \rightarrow 1m^2 - \varepsilon m - 14 = 0$$

$$K = 3$$

$$m^2 - 1m - 1 = 0$$

$$(m - \varepsilon)(m + 1) = 0$$

$$x_5 = -\frac{b}{1a} = 1 \rightarrow b = -\varepsilon a \rightarrow \frac{-1}{\varepsilon a} = 1 \rightarrow b^2 - 14a = -1 \Rightarrow a = -14a^2 + 1a = 0$$

$$\Rightarrow 14a^2 + a = 0 \rightarrow a = 0, a = -\frac{1}{14}$$

$$y = a(x - 1)^2 + 4 \rightarrow a = -\frac{1}{14}$$

$$2x^2 - 1x - 1 = 0$$

$$\frac{1}{a} + \frac{1}{B} = -\frac{1}{1}$$

$$a = -\frac{1}{14} \rightarrow b = \frac{\varepsilon}{14} \rightarrow y = -\frac{1}{14}x^2 + \frac{\varepsilon}{14}x + 1 \rightarrow -\frac{1}{14}x^2 + \frac{\varepsilon}{14}x + 1 = 0 \rightarrow x^2 - \varepsilon x - 14 = 0$$

$$S = 4 - 1 = 3$$

$$x^2 - (1a + \varepsilon)x + (1a^2 + 4a + 1) = 0$$

$$x = 1 \rightarrow 1 - 1a - 1 + 1a^2 + 4a + 1 = 0 \rightarrow 1a^2 - 1a - 1 = 0$$

$$\Delta > 0 \rightarrow (1a + \varepsilon)^2 - 4(1a^2 + 4a + 1) > 0 \rightarrow a = 1 \rightarrow \Delta > 0$$

$$\Rightarrow a = 1 \rightarrow x^2 - 1x + 11 = 0$$

$$\rightarrow a = -\frac{1}{14} \rightarrow x^2 - \frac{1}{14}x + \frac{\varepsilon}{14} \rightarrow 14x^2 - 1x + \varepsilon = 0$$

مردم یازدهم A

تالیف ۱۸

$$-\frac{b}{2a} = 2$$

$$y = (a-1)x^2 + x + 3$$

$$\frac{-1}{2(a-1)} = 2 \rightarrow -1 = 2a - 4 \rightarrow 2a = 3 \rightarrow a = \frac{3}{2}$$

$$-\frac{1}{2}x^2 + x + 3$$

$$\Delta = 1 - 4 \cdot \frac{1}{2} \cdot 3 = 1$$

$$\frac{-1 \pm \sqrt{1}}{2 \cdot \frac{1}{2}} = \begin{cases} x = 2 \\ x = \frac{3}{1} = 3 \end{cases}$$

$$f(x) = mx^2 - 5x + m$$

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$$\Delta > 0 \rightarrow 25 - 4m^2 > 0 \rightarrow 25 > 4m^2 \rightarrow m^2 < \frac{25}{4} \rightarrow -\frac{5}{2} < m < \frac{5}{2}$$

$$-\frac{5}{2} < m < \frac{5}{2}$$

$$y = ax^2 + bx + c \rightarrow a(x^2 - 5x + p) \rightarrow$$

$$S = \frac{r - \sqrt{\omega}}{w} + \frac{r + \sqrt{\omega}}{w} = \frac{y}{w} = 2$$

$$P = \frac{r - \sqrt{\omega}}{w} \cdot \frac{r + \sqrt{\omega}}{w} = \frac{9 - \omega}{9} = \frac{4}{9}$$

$$\Rightarrow x^2 - 2x + \frac{4}{9} = 0 \Rightarrow 9x^2 - 18x + 4 = 0$$

$$2x^2 - 11x + m + 4 = 0$$

$$\alpha < \beta$$

$$3\alpha^2 + \beta^2 = 12$$

$$P = \alpha\beta = \frac{m+4}{2}$$

$$S = \alpha + \beta = \frac{1}{2} = 1 \rightarrow \beta = 1 - \alpha = 1 - \beta^2 = (1 - \alpha)^2$$

$$\rightarrow \alpha + \beta = 1 \rightarrow \beta = 1$$

$$\rightarrow \frac{m+4}{2} = \alpha\beta \rightarrow m+4=4 \rightarrow m=0$$

$$\rightarrow 3\alpha^2 + (1-\alpha)^2 = 3\alpha^2 + 1 - 2\alpha + \alpha^2 - 11\alpha + 4 = 12$$

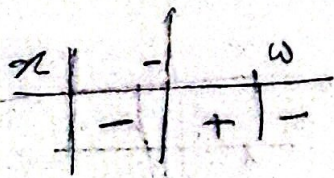
$$\rightarrow 4\alpha^2 - 11\alpha + 14 = 12 \rightarrow 4\alpha^2 - 11\alpha + 2 = 0$$

$$\rightarrow (4\alpha - 1)(\alpha - 2) = 0 \rightarrow \alpha = \frac{1}{4}$$

$$S \begin{bmatrix} 2 \\ 9 \end{bmatrix} \quad C = \omega$$

$$y = a(x-h)^2 + k \rightarrow y = a(x-r)^2 + 9 = -x^2 + 4x + 5$$

$$\begin{cases} \omega \rightarrow \omega = a(-r)^2 + 9 = 0 \rightarrow -a = -1 \end{cases}$$



$$\Rightarrow (-1, 1) \quad \text{جواب}$$