

14

درس مادی زان - یازدهم ریاضی ۱

$$y = -n^2 + bn + 3 \quad \frac{-\Delta}{4a} = \frac{-b^2 + 4ac}{4a} = \frac{-b^2 - 12}{-4} = 3 \quad (1 \text{ سوال})$$

$$-b^2 - 12 = -12 \quad -b^2 = -12 \quad b^2 = 12 \rightarrow b = \pm 2\sqrt{3}$$

$$(2 \text{ سوال}) f(n) = n^2 + 2n + 3 \rightarrow t^2 + 2t + 3 = 0 \rightarrow \Delta < 0 \rightarrow \text{ریشه ندارد}$$

$$(3) f(n) = \frac{(2-n^2)}{t} - 2(2-n^2) - 12 \rightarrow t^2 - 2t - 12 = 0$$

$$2-n^2 = 12 \quad 2-n^2 = -12 \quad t = 6, -3$$

$$n^2 = -1 \rightarrow \text{غیرممکن} \quad n^2 = 14 \rightarrow n = \pm\sqrt{14}$$

$$n^2 - 14n + m = 0 \quad \beta = \alpha + 2 \quad (3 \text{ سوال})$$

$$\div \alpha \left(\alpha + \beta \rightarrow \alpha + \alpha + 2 = 2\alpha + 2 = -\frac{b}{a} = \frac{14}{1} = 14 \right)$$

$$n^2 - 14n + \frac{m}{\alpha} = 0$$

$$\alpha + 1 = 2$$

$$\alpha/\beta = \frac{m}{\alpha} \Rightarrow \mu = \frac{m}{\alpha} \Rightarrow m = 12$$

$$\alpha = 1, \beta = 3$$

$$n^2 - 14n + 12 = 0 \rightarrow \Delta > 0$$

$$n^2 - 4n + m - 12 = 0 \quad 2\alpha - \beta = 12 \rightarrow \beta = 2\alpha - 12 \quad (4 \text{ سوال})$$

$$\alpha + \beta = \alpha + 2\alpha - 12 = 3\alpha - 12 = \frac{4}{1} \Rightarrow 3\alpha - 12 = 4 \rightarrow \alpha = 4, \beta = 0$$

$$\alpha\beta = 4 \times 0 = \frac{m-12}{1} = 0 \Rightarrow m-12=0 \Rightarrow m=12$$

$$n^2 - 4n = 0 \rightarrow \Delta > 0$$

$$-m n^2 + 4n + m^2 - 12 = 0 \quad \alpha = \frac{1}{\beta} \quad \beta \times \frac{1}{\beta} = 1 \quad (5 \text{ سوال})$$

$$\frac{m^2 - 12}{-m} = 1 \rightarrow m^2 - 12 = -m \rightarrow m^2 + m - 12 = 0$$

$$(m+4)(m-3) = 0 \rightarrow m = -4, 3$$

$$m=1 \rightarrow -n^2 + 4n - 12 = 0 \rightarrow \Delta < 0 \rightarrow \text{غیرممکن}$$

$$m=-4 \rightarrow n^2 + 4n + 12 = 0 \rightarrow \Delta < 0 \rightarrow \text{غیرممکن}$$

Arman

$$n^2 - mn + p = 0$$

$$\alpha\beta = \varepsilon \rightarrow (\alpha\beta)(\beta) = \varepsilon$$

(403)

$$\frac{\varepsilon}{\alpha} = \beta \Rightarrow \beta = \frac{\varepsilon}{\alpha}, \alpha = \frac{\varepsilon}{\beta}$$

$$\alpha + \beta = \frac{\varepsilon}{\beta} + \frac{\varepsilon}{\alpha} = \frac{12 + 14}{12} = \frac{26}{12} = \frac{13}{6} \Rightarrow m = \frac{13}{6}$$

(1, 10)

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

$$\alpha = \beta$$

(1, 10)

$$\alpha + \beta = \varepsilon\beta = \varepsilon \Rightarrow \beta = 1, \alpha = \varepsilon$$

(1, 10)

$$\alpha\beta = \varepsilon$$

$$m = 13$$

$$n^2 - \varepsilon n + 13 = 0 \checkmark$$

$$n^2 - \varepsilon n + p = 0$$

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

$$\alpha^2 - \varepsilon\alpha + p = 0$$

$$\Rightarrow \alpha^2 + p = \varepsilon\alpha$$

$$\frac{\alpha^2 + p}{\alpha} + 4\left(\alpha + \frac{1}{\alpha}\right)$$

(5)

$$= (V)^2 - 4(V) = 3\varepsilon^2 - \varepsilon^2 = 2\varepsilon^2$$

$$h(t) = -1 \cdot t^2 + \omega \cdot t$$

$$-\frac{\Delta}{\varepsilon a} = \frac{-b^2 + 4ac}{\varepsilon a} = \frac{-\omega^2 + 0}{-\varepsilon a} \quad (9 \text{ سوال})$$

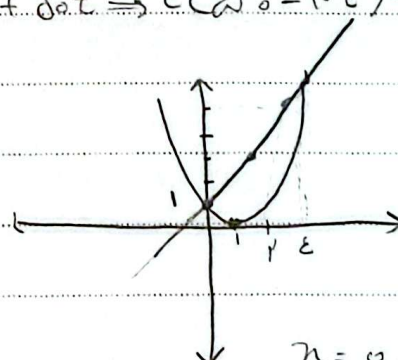
$$= \frac{\omega^2}{\varepsilon} = 4\varepsilon \omega \quad \left| \begin{array}{l} h=0 \\ -1 \cdot t^2 + \omega t \Rightarrow t(\omega - t) = 0 \end{array} \right. \Rightarrow \begin{array}{l} t=0 \\ t=\omega \end{array}$$

(5)

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

(10 سوال)

n	0	1	2
y	1	3	5

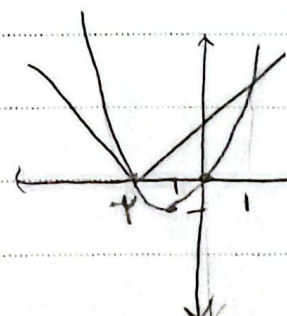


دو جواب دارد

$$n = 0, 2$$

$$n^2 + 2n = |n+2|$$

$$n = -2, n = 1$$



دو جواب دارد

$$\min \left| -\frac{b}{2a} = -1 \right|$$