

درس مادی زاده - یازدهم ریاضی ۱

$$y = -n^2 + bn + 3 \quad \frac{-\Delta}{2a} = \frac{-b^2 + 4ac}{4a} = \frac{-b^2 - 12}{-4} = 3 \quad \text{(سوال ۱)}$$

$$-b^2 - 12 = -24 \quad -b^2 = -12 \quad b^2 = 12 \rightarrow b = \pm 2\sqrt{3}$$

$$\text{(سوال ۲)} \quad f(n) = n^2 + 2n + 3 \rightarrow t^2 + 2t + 3 = 0 \rightarrow \Delta < 0 \rightarrow \text{ریشه ندارد}$$

$$\text{ب)} \quad f(n) = \frac{(2-n^2)}{t} - 2(2-n^2) - 12 \rightarrow t^2 - 2t - 18 = 0$$

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

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

$$n^2 - 14n + m = 0 \quad \beta = \alpha + 2 \quad \text{(سوال ۳)}$$

$$\div \alpha \quad \alpha + \beta \rightarrow \alpha + \alpha + 2 = 2\alpha + 2 = \frac{-b}{a} = \frac{14}{1} = 14$$

$$n^2 - 14n + \frac{m}{\alpha} = 0 \quad \alpha + 1 = 2 \quad \alpha = 1, \beta = 3$$

$$\alpha\beta = \frac{m}{\alpha} \Rightarrow 1 \cdot 3 = \frac{m}{1} \Rightarrow m = 3$$

$$n^2 - 4n + m - 12 = 0 \quad 2\alpha - \beta = 14 \rightarrow \beta = 2\alpha - 14 \quad \text{(سوال ۴)}$$

$$\alpha + \beta = \alpha + 2\alpha - 14 = 3\alpha - 14 = \frac{4}{1} \Rightarrow 3\alpha - 14 = 4 \rightarrow \alpha = 8, \beta = 2$$

$$\alpha\beta = 2 \times 8 = \frac{m-1}{1} = 0 \Rightarrow m-1 = 0 \Rightarrow m = 1$$

$$-m n^2 + 4n + m^2 - 12 = 0 \quad \alpha = \frac{1}{\beta} \quad \beta \times \frac{1}{\beta} = 1 \quad \text{(سوال ۵)}$$

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

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

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

$$m = -4 \rightarrow -n^2 + 4n + 12 = 0 \rightarrow \Delta = 0 \rightarrow \text{یک ریشه دارد}$$

Arman

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

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

(403)

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

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

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

$$\alpha = 3\beta$$

(1703)

$$\alpha + \beta = \varepsilon \beta = \varepsilon \Rightarrow \beta = 1, \alpha = 3$$

$$\alpha\beta = 3 \quad m = 3$$

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

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

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

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

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

$$= (v)^2 - 4(v) = 36 - 12 = 24 \Rightarrow \varepsilon = 6$$

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

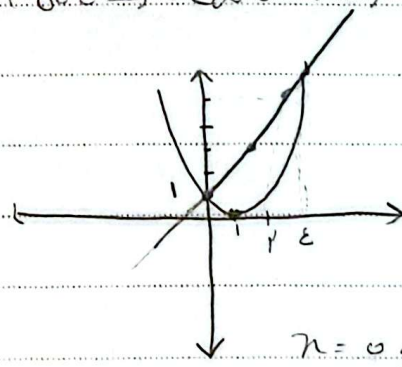
$$-\frac{\Delta}{4a} = \frac{-b^2 + 4ac}{4a} = \frac{-2^2 + 4 \cdot 1 \cdot 0}{-4} = 1$$

$$= \frac{2 \cdot 0}{-1} = 0 \Rightarrow \left[\begin{array}{l} h=0 \\ -1 \cdot t^2 + 2 \cdot t = 0 \Rightarrow t(2 - t) = 0 \Rightarrow t=0, t=2 \end{array} \right]$$

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

(1003)

n	0	1	2
y	1	3	5

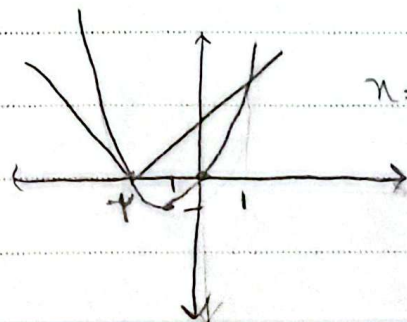


دو جواب دارد

$$n = 0, 2$$

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

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



دو جواب دارد

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