

بسم الله الرحمن الرحيم

Given: $A_1(-1, 9)$ $y = ax^2 + bx + c$ $\rightarrow \frac{-b}{2a} = -1 \rightarrow \frac{b}{2a} = 1$ (1)
 $(1, 3)$ نقطة $b = 2a$

$$\frac{-\Delta}{2a} = 9 \rightarrow -\Delta = 36a \rightarrow b^2 - 4ac = 36a$$

$$4a^2 - 4ac = 36a \rightarrow a - c = 9a$$

$$y = ax^2 + 2ax - 1a \rightarrow 3 = a + 2a - 1a \quad c = -1a$$

$$-2a = 3 \rightarrow a = \frac{-3}{2} \quad b = \frac{-4}{2} \quad c = \frac{3}{2}$$

$$y = \frac{-3}{2}x^2 - \frac{4}{2}x + \frac{3}{2}$$

$$2x^2 + mx + m + 9 = 0$$

$$m^2 - 4m + 36 > 0$$

$$(m-12)(m+3) > 0$$

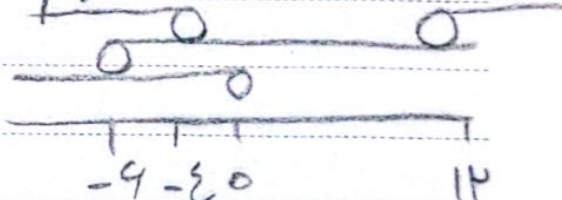
$$m = 12 \quad m = -3$$



$$\Delta > 0 \quad \leftarrow + \frac{36}{4} (12)$$

$$S > 0$$

$$P > 0$$



$$S > 0 \rightarrow \frac{m+9}{2} > 0 \quad m > -9$$

$$P > 0 \rightarrow \frac{-m}{2} > 0 \rightarrow m < 0$$

$$(-9, -3)$$

$$2x^2 + (2m-1)x + 2-m = 0 \quad \frac{-b}{a} = \frac{a}{c} \quad (12)$$

$$\frac{-2m+1}{2} = \frac{2}{2-m} \rightarrow 9 = (2-m)(-2m+1)$$

$$9 = -2m + 2 + 2m^2 - m$$

$$+2m^2 - 3m + 4 = 0$$

$$(m-4)(m+1) \rightarrow m = \frac{+4}{2} \quad \checkmark$$

$$m = -1 \quad \times$$

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$$\Delta > 0 \rightarrow 9 - 12 < 0 \quad \checkmark$$

$$y = ax^r + (r + \lambda)a$$

از این معادله می توانیم بنویسیم (V)

$$a > 0 \quad x^r \geq 0 \quad \Delta \geq 0 \rightarrow r + \varepsilon a^r + \lambda a \geq 0 \rightarrow$$

$$(r + \lambda)^r \geq r \rightarrow a \neq \frac{-r}{r} \quad \text{II} \quad x^r \quad \text{III} \quad S \geq 0 \rightarrow \frac{-r - \lambda a}{a} \geq 0 \rightarrow$$

$$a < \frac{-r}{r} \quad \text{III} \quad \text{I} \cap \text{II} \cap \text{III} = \emptyset$$

$$y = x^r + ax - r \quad \left\{ \begin{array}{l} \rightarrow \frac{-a}{r} = -1 \rightarrow \\ \rightarrow a = r \end{array} \right.$$

$$y = -x^r - \lambda x + b \quad \left\{ \begin{array}{l} y = x^r + \lambda x - r \rightarrow \\ 1 = x^r + \lambda x - r \end{array} \right.$$

$$+ 1 = x^r - \lambda x + b \rightarrow b = r$$

$$\frac{r}{r} = b - r$$

$$ab = \Lambda = r \times \varepsilon$$

$$r x^r - ax + b = 0 \rightarrow x + \frac{1}{r}, \beta + \frac{1}{r} \left[\frac{ab}{\varepsilon} \right]$$

$$r a x^r + a x - r = 0 \rightarrow \alpha, \beta \rightarrow \alpha \beta = -r$$

$$\left(\alpha + \frac{1}{r} \right) \left(\beta + \frac{1}{r} \right) = \alpha \beta + \frac{\alpha}{r} + \frac{\beta}{r} + \frac{1}{r^2} = \frac{b}{r}$$

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

$$\left[\frac{-r \times 1}{\varepsilon} \right] = \left[\frac{-r}{r} \right] = -1 \quad \alpha + \frac{1}{r} + \beta + \frac{1}{r} = \frac{a}{r}$$

$$1 - \frac{1}{r} = \frac{a}{r} \rightarrow a = 1$$

Subject:

Year.

Month.

Date.

()

Name.

$$x^p + 9x + m = 0 \rightarrow S = -9 \rightarrow \alpha = -9 - \beta$$

(10)

$$x^p + 1x - 1m = 0 \rightarrow S = -1 \rightarrow \alpha = -1 - \delta$$

$$-9 - \beta = -1 - \delta \rightarrow \delta - \beta = 8$$

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