

نام و نام خانوادگی: زهرا سادات حسینی ۲۰ یاغنه شریف سلیم ۱۳۰۱ لاس: یازدهم خرداد ۱۳۹۰

$$n=2 \rightarrow \text{طول رأس} \rightarrow n_s = -\frac{b}{2a} = -\frac{1}{2a-2} = 2 \rightarrow \Sigma a - f = -1 \rightarrow \Sigma a = 3$$

$$\boxed{a = \frac{3}{2}} \rightarrow y = -\frac{1}{2}x^2 + x + 3 \rightarrow x = \frac{-1 \pm \sqrt{1+12}}{-1/2} = \frac{-1 \pm 4}{-1/2} \Rightarrow \begin{cases} x=6 \\ x=-2 \end{cases}$$

$$y = mx^2 - \omega x + m \rightarrow a < 0 \rightarrow 2\omega - \Sigma m^2 < 0 \rightarrow 4m^2 < 2\omega \rightarrow m^2 < \frac{\omega}{2} \rightarrow -\frac{\omega}{2} < m < \frac{\omega}{2}$$

با توجه به همین حالت  $m < 0$

$$\hookrightarrow -\frac{\omega}{2} < m < 0$$

$$\Sigma = \alpha + \beta = \frac{+3 + \sqrt{5} + 3 - \sqrt{5}}{3} = 3$$

$$P = \alpha\beta = \left(\frac{3 + \sqrt{5}}{3}\right)\left(\frac{3 - \sqrt{5}}{3}\right) = \frac{9 - 5}{9} = \frac{4}{9}$$

$$m^2 - \Sigma m + P = 0 \rightarrow m^2 - 3m + \frac{4}{9} = 0 \xrightarrow{\times 9} 9m^2 - 11m + 4 = 0$$

$$2m^2 - 11m + 4 = 0; \quad 2\alpha^2 + \beta^2 = 12 \rightarrow 2\alpha^2 + \alpha^2 + \beta^2 = 12 \rightarrow 3\alpha^2 + \beta^2 = 12$$

$$\Sigma = \alpha + \beta = 3$$

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

$$11\alpha - 2m = 0 \rightarrow \boxed{\alpha = m} \Rightarrow 2\alpha^2 - 11\alpha + 4 = 0 \rightarrow 2\alpha^2 - \Sigma\alpha + 2 = 0$$

$$\alpha, \beta \quad \Sigma\alpha = m \Rightarrow \boxed{m = 4}$$

$$\alpha^2 = 11\alpha - m - 2$$

$$\sqrt{2} \alpha \beta \leftarrow \beta = 3, \alpha = 1$$

$$\frac{5}{9} \Big| \frac{1}{9}, A \Big| \omega \Rightarrow y = a(n - n_0)^2 + y_s \rightarrow y = a(n - 2)^2 + 9 \rightarrow \Big| \omega \Rightarrow \omega = \Sigma a + 9$$

$$\boxed{a = -1} \Rightarrow y = -(n^2 - 4n + 4) + 9 \rightarrow -n^2 + 4n + 5 = 0 \Rightarrow \begin{cases} n = -1 \\ n = 5 \end{cases}$$

$$a + b = -1 \Rightarrow \begin{cases} a = 1 \\ b = -2 \end{cases}$$

$$y > 0 \rightarrow \text{بین ۱ و ۵} \rightarrow (-1, 5)$$

ریشه  $(-1, 5)$  کسری بالای محور مختصات



$$p = \alpha \beta = \frac{4\beta}{\alpha}$$

$$S = \alpha + \beta = \frac{V}{\alpha} \rightarrow \frac{\alpha + \beta}{\alpha \beta} = \frac{\frac{V}{\alpha}}{\frac{4\beta}{\alpha}} = \frac{V}{4\beta} = \frac{V}{4(\frac{V}{\alpha})} = \frac{V}{4}$$

$$\alpha^2 = 9 \rightarrow \alpha = \pm 3$$

$$\alpha = 3 \rightarrow \beta = \frac{V}{\mu} - 3 = -\frac{1}{\mu} \bar{0} \bar{0} \bar{0} \rightarrow \beta > 0$$

$$\alpha = -3 \rightarrow \beta = -\frac{V}{\mu} + 3 = \frac{1}{\mu} \bar{0} \bar{0} \rightarrow \beta > 0$$

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$$S = \alpha + \beta = ? / \alpha + \beta = -m \quad \left\{ \begin{array}{l} \alpha^2 = -m\alpha + \mu m \end{array} \right.$$

$$\beta = \alpha \beta = -\mu m$$

$$\alpha^2 - m\beta = \lambda \rightarrow -m(\alpha + \beta) + \mu m = \lambda \Rightarrow m^2 + \mu m - \lambda = 0 \rightarrow (m + \epsilon)(m - \epsilon) = 0$$

$$m = -\epsilon \rightarrow m^2 - \epsilon m + \lambda = 0 \rightarrow \Delta = 14 - 3\epsilon < 0 \rightarrow m \neq -\epsilon$$

$$m = \epsilon \rightarrow m^2 + \mu m - \epsilon = 0 \rightarrow \Delta = \epsilon^2 + 14 > 0 \Rightarrow m = \epsilon \Rightarrow \alpha + \beta = -m = -\epsilon$$

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V

$$y_{max} = -\frac{\Delta}{\epsilon \alpha} = \lambda \rightarrow -\frac{(14 - \epsilon m(\frac{\mu}{\epsilon} + V))}{\epsilon m} = \lambda \rightarrow 3\mu m = -14 + \mu m^2 + \epsilon \lambda m$$

$$0 = \mu m^2 - \epsilon m - 14 = 0 \xrightarrow{\div \mu} m^2 - \mu m - \frac{14}{\mu} = 0 \rightarrow (m - \epsilon)(m + \epsilon) = 0 \rightarrow m = -\epsilon$$

$$-\mu m^2 + \epsilon m + 14 = 0 \rightarrow m = -1$$

$$\left\{ \begin{array}{l} a + b = c \\ a = -1 \\ b = -\epsilon \end{array} \right. \rightarrow \alpha = \mu = 14 \Rightarrow 14 > 0$$

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$$y = \alpha(m - \epsilon)^2 + \epsilon \xrightarrow{\div \epsilon} f = \alpha + \epsilon \Rightarrow \alpha = -\frac{1}{\epsilon} \rightarrow y = -\frac{1}{\epsilon}(\mu^2 - \epsilon m + \epsilon) + \epsilon$$

$$y = -\frac{1}{\epsilon} \mu^2 + \mu + \epsilon \Rightarrow \frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha \beta} = \frac{\epsilon}{-1} = -\frac{1}{\epsilon}$$

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$$S = \alpha + \beta = \epsilon$$

$$P = \alpha \beta = -1$$

$$\alpha = \epsilon \rightarrow \epsilon - \lambda \alpha - 1 + \mu \alpha^2 + \epsilon \alpha + \epsilon = 0 \rightarrow \mu \alpha^2 - \epsilon \alpha - 1 = 0 \rightarrow \begin{cases} \alpha = +1 \bar{0} \bar{0} \\ \alpha = -\frac{1}{\mu} \bar{0} \bar{0} \end{cases}$$

$$y = \mu^2 - \lambda m + 14 \rightarrow \Delta = 4\epsilon - \epsilon \lambda > 0 \Rightarrow m < \frac{\epsilon}{\mu}$$

$$\alpha = 1$$

$$\alpha = -\frac{1}{\mu} \rightarrow y = \mu^2 - (-\frac{\epsilon}{\mu} + \frac{1}{\mu})\mu + (\mu \times \frac{1}{\mu} + \epsilon(-\frac{1}{\mu}) + \epsilon) \rightarrow y = \mu^2 - \frac{1}{\mu}\mu + \frac{\epsilon}{\mu}$$

$$\mu^2 - \lambda m + \epsilon = 0 \rightarrow \Delta = 4\epsilon - \epsilon \lambda > 0 \Rightarrow m < \frac{\epsilon}{\mu}$$

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