

$$\alpha^2 = \delta\alpha - 2, \quad \beta^2 = \delta\beta - 2$$

$$\alpha\beta = 2 \rightarrow \alpha = \frac{2}{\beta} \rightarrow \varepsilon\alpha = \frac{1}{\beta} \rightarrow \varepsilon\alpha = \varepsilon(\delta - \beta) = 20 - \varepsilon\beta \Rightarrow \beta^2 = B \times (\delta\beta - 2) = \delta\beta^2 - 2\beta$$

$$\beta^2 = B \times (\beta^2)^2 = B \times ((\delta\beta - 2)^2) = B(20\beta^2 - 20\beta + 8) = 20\beta^2 - 20\beta + 8B$$

$$\rightarrow 20(20\beta - 10) - 20(\delta\beta - 2) + 8B = 400\beta - 200 - 20\delta\beta + 40 + 8B = 400\beta - 20\delta\beta - 160 + 8B$$

$$\frac{(20 - \varepsilon\beta)(400\beta - 20\delta\beta - 160 + 8B)}{\delta\beta^2} = \frac{400\beta - 20\delta\beta - 160}{\delta\beta^2} \div \delta = \frac{40\beta - 2\delta\beta - 16}{\beta^2} \rightarrow \frac{19(\delta\beta - 2)}{\beta^2} = 19$$

$$u_5 \xrightarrow{\text{مساوی}} \frac{2 - 11\delta}{2} = 0.17\delta$$

$$\frac{\alpha + \beta}{2} = 0.17\delta \rightarrow \alpha + \beta = 11\delta$$

$$\frac{\sqrt{\Delta}}{|\alpha|} = \frac{\varepsilon}{2} K \rightarrow \sqrt{\varepsilon K^2 - 20} = \frac{\varepsilon K}{2} \rightarrow \varepsilon K^2 - 20 = \frac{19}{4} K^2 \div \varepsilon \rightarrow K^2 - \delta = \frac{19}{4} K^2$$

$$\rightarrow \frac{1}{4} K^2 = \delta \rightarrow K^2 = 9$$

$$\left[\frac{K^2}{2} \right] \xrightarrow{K^2=9} [\varepsilon 10] = \varepsilon$$

$$u_5 = \frac{2 - \delta}{2} = -1 \xrightarrow{y_2=1} \text{Ext} \begin{vmatrix} -1 \\ 1 \end{vmatrix}$$

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

$$y = a(u - h)^2 + k \rightarrow y = a(u + 1)^2 + 1 \xrightarrow{y=0} 0 = a(u + 1)^2 + 1 \rightarrow a = \frac{-1}{(u + 1)^2}$$

$$(u + 1)^2 = \frac{-1}{a} \Rightarrow \alpha, \beta = -1 \pm \sqrt{\frac{-1}{a}}$$

$$y = a(0 + 1)^2 + 1 \rightarrow y = a + 1 \rightarrow \frac{1}{2} = a + 1 \rightarrow a = -\frac{1}{2} \Rightarrow \text{Ext} \begin{vmatrix} 0 \\ 1 \\ -\frac{1}{2} \end{vmatrix}$$

$$-u^2 + \delta u + m = 0 \quad u_1, u_2 = \frac{-\delta \pm \sqrt{\delta^2 + 4m}}{-1} < \frac{9}{2} \rightarrow \delta \pm \sqrt{\delta^2 + 4m} < 9$$

$$\pm \sqrt{\delta^2 + 4m} < 9 - \delta \quad 0 \leq \delta^2 + 4m < 19 \rightarrow -\frac{\delta^2}{4} \leq m < \frac{9 - \delta}{2}$$

$$\bigcup_{\delta \in \mathbb{R}} m \in [-9, -3]$$

$$x_5 = \frac{-b}{2a} = \frac{9}{m} \rightarrow y_{\min} = m\left(\frac{9}{m}\right)^2 - 12 \times \frac{9}{m} + \Delta m - 1$$

$$\rightarrow y_{\min} = \frac{81}{m} + \Delta m - 1 \rightarrow r = \frac{-c}{m} + \Delta m - 1 \rightarrow r = \frac{-c}{m} + \Delta m$$

$$\rightarrow r_m = -c + \Delta m^2 \rightarrow \Delta m^2 - c_m - c = 0 \Rightarrow m = c$$

$$\rightarrow y = r_m^2 - 12r + 12 \rightarrow x_5 = \frac{-b}{2a} = r$$

$$d, a, \beta \Rightarrow a^2 = \alpha \beta = P = \frac{c}{a} = \frac{2a-1}{1} \rightarrow a^2 = 2a-1$$

$$\Delta \text{ عبارت به هم می نرسد} \rightarrow a^2 - 2a + 1 = 0$$

$$\Delta = 1 \rightarrow \Delta > 0 \rightarrow \text{دو ریشه}$$

$$(a-1)^2 = 0 \Rightarrow a = 1$$

$$x^2 = t \rightarrow t^2 - vt + 0 = 0 \rightarrow t = \begin{cases} \frac{v + \sqrt{v^2}}{2} \\ \frac{v - \sqrt{v^2}}{2} \times \text{مینوس} \end{cases}$$

$$\rightarrow x^2 = \frac{v - \sqrt{v^2}}{2}$$

$$x = \pm \sqrt{\frac{v - \sqrt{v^2}}{2}} \rightarrow s = 0$$

$$P = \frac{-v - \sqrt{v^2}}{2} \rightarrow P = \frac{v + \sqrt{v^2}}{2}$$

$$2P^2 - c^2 P + c^2$$

$$= 8 \times \frac{81 + 12\sqrt{81} + 81}{2 \times 8} = \frac{114 + 12\sqrt{81}}{8} = \frac{114 + 12 \times 9}{8} = \frac{222}{8} = \frac{111}{4}$$

$$y = Kx^2 - \Sigma x_1 - 9 \rightarrow x_5 = \frac{r}{K}$$

$$y_5 = K\left(\frac{r}{K}\right)^2 - \Sigma\left(\frac{r}{K}\right) - 9 = \frac{\Sigma}{K} - \frac{1}{K} - 9 \rightarrow y_5 = -\left(\frac{\Sigma}{K} + 9\right) \textcircled{1}$$

$$y = -\Sigma x - \Sigma = -\Sigma\left(\frac{r}{K}\right) - \Sigma = -\frac{1}{K} - \Sigma \textcircled{2} \quad \left\{ \textcircled{1}, \textcircled{2} \rightarrow \frac{1}{K} + \Sigma = \frac{\Sigma}{K} + 9 \right.$$

$$y_5 = \frac{-\Sigma}{K} - 9 = \frac{-\Sigma}{K} - 9 = -1 \rightarrow \frac{\Sigma}{K} = 2 \rightarrow K = 2$$

$$-m x^2 + m x + 1 \xrightarrow{\Delta < 0} -m x^2 + (m+1)x + m+1 = 0$$

$$(m+1)^2 + (\Sigma)(m)(m+1) < 0 \rightarrow m^2 + 2m + 1 + \Sigma m^2 + \Sigma m < 0$$

$$\rightarrow \Delta m^2 + 9m + 1 < 0 \rightarrow (\Delta m + 1)(m + 1) < 0$$

$$\frac{-1}{+} \quad \frac{-1}{-}$$

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