

باران مرادی ①

$$\alpha\beta = 1 \quad \frac{f\alpha + \beta^2 \times \beta}{\omega\beta^2 \times \beta} = \frac{f\alpha\beta + \beta^3}{\omega\beta^3} = \frac{1 + \beta^3 \times \alpha^3}{\omega\beta^3 \times \alpha^3} = \frac{1\alpha^3 + 1\beta^3}{f}$$

$$\frac{\alpha^3 + \beta^3}{\omega} = \frac{5^3 - 3SP}{\omega} = \frac{(1 - \frac{b}{a})^3 - 3(-\frac{bc}{a^2})}{\omega} = \frac{\omega^3 - 3 \times 7 \times \omega}{\omega} = \omega - 4 = 19$$

مقدار $x = \frac{3 + (-1/\omega)}{7} = 0.17\omega$ مقدار $x = \frac{\alpha + \beta}{7} = 0.17\omega \rightarrow \alpha + \beta = 1/\omega$

$$\frac{\sqrt{\Delta}}{|a|=1} = \frac{f}{7}k \rightarrow \sqrt{fk^2 - 2} = \sqrt{\frac{14}{9}k^2} \rightarrow 34k^2 - 18 = 14k^2$$

$$\left[\frac{k^2}{9}\right] = \left[\frac{9}{7}\right] = f$$

② ✓

$$7k^2 = 18 \rightarrow k^2 = 9$$

$$ax^2 + bx + c = y \rightarrow y_1 = y_2 \rightarrow 9a + 3b + c = 7\omega a - \omega b + c$$

$$y = \frac{-\Delta}{fa} = \frac{(fa^2 - fa c)}{fa} = 1$$

$$1b = 14a$$

$$b = 7a$$

$$\frac{-fa(a-c)}{fa} = 1 \rightarrow a - c = -1$$

$$a + 1 = c$$

$$\rightarrow \frac{ax^2 + 7ax + a + 1}{a} \rightarrow x^2 + 7x + 1 + \frac{1}{a} = 0$$

$$\alpha^2 + \beta^2 = \omega \rightarrow 5^2 - 7P = f - 7(1 + \frac{1}{a}) = \omega \rightarrow \frac{1}{a} = \frac{1}{7} - 1 \rightarrow a = -\frac{7}{6}$$

$$x=0 \rightarrow y=c = -\frac{7}{6} + 1 = \frac{1}{6}$$

نتیجه: $\begin{bmatrix} 0 \\ \frac{1}{6} \end{bmatrix}$

⑤

$$1) x_1 < \frac{9}{7} \rightarrow \frac{-\omega + \sqrt{2\omega + fm}}{-7} < \frac{9}{7} \quad \frac{\sqrt{2\omega + fm}}{-7} < \frac{f}{7} \rightarrow \text{همیشه برقرار}$$

$$x_2 < \frac{9}{7} \rightarrow \frac{-\omega - \sqrt{2\omega + fm}}{-7} < \frac{9}{7} \rightarrow \frac{\sqrt{2\omega + fm}}{7} < \frac{f}{7} \rightarrow 2\omega + fm < 14$$

$$fm < -9 \rightarrow m < -\frac{9}{f}$$

$$2) \Delta > 0 \rightarrow 2\omega + fm > 0 \rightarrow fm > -2\omega$$

$$m > -9/2\omega$$

$$1 \wedge 2 \rightarrow -\frac{5\omega}{f} < m < -\frac{9}{f} \rightarrow m = \{-3, -4, -5, -4\} \rightarrow \text{مقدار صحیح}$$

② ✓

$$\frac{-\Delta}{fa} = 2 \rightarrow -\Delta = 1a \rightarrow -(144 - fm(m-1)) = 1m$$

$$\frac{-144 + 2 \cdot m^2 - 12m = 0}{f} \rightarrow \omega m^2 - 3m - 36 = 0$$

$$y = 3x^2 - 12x + 14$$

$$xt = \frac{-b}{2a} = \frac{12}{6} = 2$$

$$\Delta = 9 + 2 \cdot 36 = 81 \Rightarrow \sqrt{81} = 9$$

$$m = \frac{3 \pm 9}{1} < \frac{-2/4}{3} \rightarrow m > \text{Min}$$

$$2a-1 = \alpha\beta \rightarrow a^2 = \alpha\beta \rightarrow a^2 = 2a-1 \rightarrow a^2 - 2a + 1 = 0 \quad (a-1)^2 = 0$$

$$2a+2 = \alpha + \beta \quad b^2 = ac \quad \boxed{a=1}$$

شرط وجود درجه برای $a=1$ برقرار است.

$$x^2 = t \rightarrow t^2 - 7t - 5 = 0 \quad t = \frac{7 \pm \sqrt{49}}{2} \rightarrow x^2 = t$$

$$\Delta = 49 + 20 = 69$$

$$x^2 = 2 \left(\frac{-7 - \sqrt{69}}{2} \right) = -7 - \sqrt{69}$$

$$p = \frac{-7 - \sqrt{69}}{2}$$

$$y = -f \times \frac{f}{fk} - f = \frac{-1 - fk}{k}$$

$$\frac{-\Delta}{fa} = \frac{-14 - 2fk}{fk} = \frac{-1 - fk}{k} \rightarrow -14k - 2fk^2 = -32k - 14k^2$$

$$14k = 14k^2$$

$$2k = k^2 \rightarrow k^2 - 2k = 0 \quad k=0 \text{ یا } k=2$$

$$y = \frac{-14 - 2f \times 2}{f \times 2} = \frac{-14 - 4f}{2} = -7 - 2f$$

$$-mx^2 + mx + 1 + m + x = 0 \leftrightarrow -mx^2 + mx + 1 = -m - x$$

$$-mx^2 + (m+1)x + 1 + m = 0 \rightarrow \Delta < 0$$

$$(m+1)^2 + 4m(m+1) < 0$$

$$m^2 + 1 + 2m + 4m^2 + 4m < 0$$

$$5m^2 + 4m + 1 < 0 \rightarrow m = -1 \text{ و } -\frac{1}{5}$$

$$\begin{array}{c} -1 \quad -\frac{1}{5} \\ + \quad | \quad - \quad | \quad + \\ 0 \quad 0 \end{array}$$

هیچ مقدار صحیحی نیست