

$$x^2 - \omega x + 1 = 0 \Rightarrow \frac{\kappa a + \beta \omega}{\omega \beta^2} = ?$$

$$\begin{cases} \beta^2 - \omega \beta + 1 = 0 \\ \beta^2 = \omega \beta - 1 \end{cases} \quad \begin{cases} a + \beta = \omega \\ a \times \beta = 1 \end{cases}$$

$$a = \omega - \beta$$

$$\frac{\kappa a}{\omega \beta^2} + \frac{1}{\omega} \beta^2 \Rightarrow \frac{\kappa}{\omega} \times \frac{\omega - \beta}{\omega \beta - 1} + \frac{1}{\omega} \beta \cdot \beta^2 \Rightarrow \frac{\kappa}{\omega} \times \frac{\omega - \beta}{\omega \beta - 1} + \frac{1}{\omega} (\omega \beta^2 - \beta)$$

$$\Rightarrow \frac{10 - \kappa \beta}{\omega (\omega \beta - 1)} + \frac{\beta^2 \beta - 10}{\omega} \times \frac{\omega \beta - 1}{\omega \beta - 1} \Rightarrow \frac{\kappa \omega \beta - 10}{\omega (\omega \beta - 1)} \Rightarrow \frac{9 \omega (\omega \beta - 1)}{\omega (\omega \beta - 1)} = \frac{9 \omega}{\omega} = 9$$

$$y = ax^2 + bx + c \Rightarrow \begin{cases} -\kappa = 9a + 4b + c \\ -\kappa = 1,2\omega a - 1, \omega b + c \end{cases} \quad \begin{cases} 9, 1, \omega a - \varepsilon, \omega b = 0 \\ b = -1, \omega a \end{cases} \quad \text{(سوال 2)}$$

$$S = \frac{-b}{a} = \frac{-(-1, \omega a)}{a} = +1, \omega \quad \checkmark$$

$$a - \beta = \frac{\kappa}{\nu} k \quad x^2 + 2kx + \omega = 0 \quad \left[\frac{\kappa^2}{\nu} \right] = ? \Rightarrow \left[\frac{9}{\varepsilon \omega} \right] = \kappa \quad \text{(سوال 3)}$$

$$\Delta = (2k)^2 - 4(\omega)(1) = 4k^2 - 4$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-2k \pm \sqrt{4k^2 - 4}}{2} \Rightarrow \frac{-2k + \sqrt{4k^2 - 4}}{2} - \left(\frac{-2k - \sqrt{4k^2 - 4}}{2} \right)$$

$$\Rightarrow \frac{-2k + 2k + \sqrt{4k^2 - 4} + \sqrt{4k^2 - 4}}{2} = \frac{2(\sqrt{4k^2 - 4})}{2} = \frac{\varepsilon}{\nu} k$$

$$(\sqrt{4k^2 - 4})^2 = \left(\frac{\varepsilon}{\nu} k \right)^2 \Rightarrow 4k^2 - 4 = \frac{14k^2}{9} \Rightarrow 36k^2 - 36 = 14k^2$$

$$22k^2 - 36 = 14k^2 \Rightarrow 8k^2 = 36 \Rightarrow k^2 = 9$$

$$x_1 = \frac{-b}{2a} = \frac{-\omega + 1}{2} = -1 \Rightarrow S = \frac{-b}{2a} = -1$$

(سوال 4)

$$y = a(x-h)^2 + k \Rightarrow y = a(x+1)^2 + 1 \Rightarrow ax^2 + a + 2ax + 1$$

$$x^2 + \beta^2 = \omega \rightarrow S^2 - 2p = \omega \rightarrow \kappa - 2\left(\frac{a+1}{a}\right) = \omega \quad \frac{\gamma a - 2}{a} = 1 \rightarrow a = \frac{2}{\nu}$$

$$y = \frac{2}{\nu} (x+1)^2 + 1 \rightarrow \frac{2}{\nu} + \frac{4}{\nu^2} = \frac{1}{\nu} \quad \checkmark$$

سوال (5)

$$x_1, x_2 \Rightarrow \frac{-\omega \pm \sqrt{2\omega + \varepsilon m}}{-1} < \frac{-9}{\varepsilon} \Rightarrow \omega + \sqrt{2\omega + \varepsilon m} < 9 \rightarrow 2\omega + \varepsilon m < 14$$

$$m < \frac{14}{\varepsilon}$$

$$\Delta > 0 \Rightarrow 2\omega + \varepsilon m > 0 \Rightarrow m > \frac{-2\omega}{\varepsilon}$$

$$\Rightarrow \frac{-2\omega}{\varepsilon} < m < \frac{14}{\varepsilon} \rightarrow \frac{-14}{\varepsilon}, \frac{-2}{\varepsilon}, \frac{-14}{\varepsilon}, \frac{-12}{\varepsilon} \Rightarrow -4, -\omega, -1, -3$$

(مقدار، 4)

سوال (4)

$$\Delta < 0 \quad \left\{ \begin{array}{l} \frac{-b}{2a} \Rightarrow \frac{+12}{2(m)} = \frac{12}{2m} = \frac{4}{m} \Rightarrow m = \frac{4}{3} = 1.33 \\ \frac{-\sqrt{\Delta}}{2a} \Rightarrow \frac{b^2 - 4ac}{4a} = \frac{144 - 4(m)(\omega m - 1)}{4a} \end{array} \right.$$

$$y = mx^2 - 12x + \omega m - 1$$

$$\omega m^2 - 3m - 34 = 0 \rightarrow \frac{3 \pm \sqrt{V^2 9}}{1.0} \rightarrow x_1 = \frac{3+12}{1.0} = 15$$

$$x_2 = \frac{3-12}{1.0} = -9$$

سوال (7)

$$\alpha \times \beta = a^2 \rightarrow 2a - 1 = a^2 \rightarrow 2a - 1 - a^2 = 0 \Rightarrow (a-1)^2 = 0 \rightarrow a = 1$$

$$\alpha + \beta = -2(a+1) \quad \alpha + \beta = 2a - 1 \Rightarrow \alpha = \frac{2(a)}{1} - \beta \rightarrow a = 1 - \beta$$

$$\alpha, a, \beta$$

سوال (1)

$$\Delta = b^2 - 4ac \quad S = \frac{-b}{a} = \frac{-(-V)}{1} = V$$

$$P = \frac{c}{a} = \frac{-\omega}{1} = -\omega$$

$$2(-\omega)^2 - 3(V)(-\omega) + 2(V)$$

$$\Rightarrow \omega^2 + 1\omega + 12 = 149$$

سوال ۹

$$y = kx^2 - 4x - 4 \xrightarrow{\text{میزان گیری}} \frac{-b}{2a} = \frac{+4}{2k} = \frac{2}{k}$$

$$\xrightarrow{\text{میزان گیری}} \frac{-\Delta}{2a} = \frac{-(b^2 - 4ac)}{2a} = \frac{-(14 - 4k)(-4)}{4k} = \frac{-14 + 4k}{4k} = \frac{-k}{k} - 4$$

$$y = -kx - k \Rightarrow \frac{2}{k} - 4 = -k \left(\frac{2}{k}\right) - k \Rightarrow \frac{2}{k} = 2 \rightarrow k = 1$$

$$\text{میزان گیری} = \frac{-2}{k} - 4 = \frac{-2}{1} - 4 = -2 - 4 = -6 \quad \checkmark$$

سوال ۱۰

$$\left. \begin{array}{l} y = -mx^2 + mx + 1 \\ y = -m - x \end{array} \right\} \Rightarrow -mx^2 + mx + 1 = -m - x$$

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

$$-mx^2 + (m+1)x + (m+1) = 0$$

$$(-mx^2 + (m+1)x + (m+1) = 0) \times (-1) \Rightarrow mx^2 - (m+1)x - (m+1) = 0$$

$$\Delta < 0 \Rightarrow b^2 - 4ac = [-(m+1)^2 - 4(m)(-m-1)]$$

$$\Delta = (m+1)^2 + 4m(m+1) < 0 \Rightarrow (m+1)[(m+1) + 4m] < 0$$

$$(m+1)(5m+1) < 0 \rightarrow m < -1 \quad \text{و} \quad m > -\frac{1}{5} \Rightarrow -1 < m < -\frac{1}{5}$$

$$5m^2 + \underbrace{m+4m+1}_{4m} < 0$$

← در مجموع مدام بازه وجود ندارد