

$\alpha = 3\beta$

$\frac{c}{a} = \alpha \cdot \beta \Rightarrow \frac{K}{3} = 3\beta^2 \rightarrow 9\beta^2 = K \Rightarrow \beta = \pm \sqrt{\frac{K}{9}}$ و $\alpha = \pm 3$

اختلاف دو مقدار $a = 1+1=2$

$\frac{a}{3} = \begin{cases} \frac{K}{9} + 2 = \frac{K}{9} \\ -\frac{K}{9} - 2 = -\frac{K}{9} \end{cases}$

$\frac{1}{\sqrt{\alpha}} + \frac{1}{\sqrt{\beta}} = \omega \frac{K}{9} \Rightarrow \frac{\beta + \alpha + \sqrt{\alpha \cdot \beta}}{\sqrt{\alpha \cdot \beta}} = \omega \frac{K}{9} \Rightarrow \frac{m+1K+1K}{9} = \frac{K}{9} \rightarrow m = -1$

$-21\alpha^2 + 3\alpha + 2 = 0 \rightarrow \alpha = -2$

$\begin{cases} \alpha + \beta = 1 \\ \alpha \cdot \beta = -2 \end{cases} \Rightarrow (1-\beta)\beta = -2 \Rightarrow \beta^2 - \beta - 2 = 0 \rightarrow \beta = 2 \text{ و } \alpha = -1$

$\beta = 2 \Rightarrow 3K + 4K - 11 - 2 = 0 \rightarrow K = -3$

$\beta = -1 \text{ و } \alpha = 2 \Rightarrow -K + K + 9 - 2 = 0 \rightarrow K = -3$

$\Delta = 34 - 4a \Rightarrow \alpha = \frac{-9 \pm \sqrt{34-4a}}{2} = \begin{cases} -3 + \sqrt{9-a} = \beta \\ -3 - \sqrt{9-a} = \alpha \end{cases}$

$3(-3 - \sqrt{9-a})^2 + 2(-3 + \sqrt{9-a})^2 = 12\sqrt{2} + 10 \Rightarrow 3(11 - a + 4\sqrt{9-a}) + 2(11 - a - 4\sqrt{9-a}) = 12\sqrt{2} + 10$

$11\sqrt{9-a} - 12\sqrt{9-a} = 12\sqrt{2} \rightarrow \sqrt{9-a} = \sqrt{12} \rightarrow 9-a = 12 \rightarrow a = -3$

$\alpha^2 = z^2 \rightarrow z^2 - Vz - \omega = 0 \rightarrow z = \frac{-V \pm \sqrt{49}}{2} = \frac{-V \pm 7}{2}$

$\alpha_1 = \frac{-V + \sqrt{49}}{2} \rightarrow \alpha_1 = \sqrt{\frac{V+7}{2}}$ و $\alpha_2 = -\sqrt{\frac{V+7}{2}}$

$\alpha_1 + \alpha_2 = 0$

$2\alpha^2 - 3\alpha + 2 = 0 \Rightarrow 2\left(\sqrt{\frac{V+7}{2}}\right)^2 - 3\sqrt{\frac{V+7}{2}} + 2 = 0$

$\alpha = \frac{1}{p} + \alpha'$

$\beta = \frac{1}{p} + \beta' \Rightarrow \alpha \cdot \beta = \left(\alpha' + \frac{1}{p}\right)\left(\beta' + \frac{1}{p}\right) = \frac{1}{p} + \frac{\alpha' + \beta'}{p} + \alpha'\beta' = -3 = \frac{b}{p}$

$\alpha + \beta = \frac{1}{p} + \alpha' + \frac{1}{p} + \beta' = 4 + \frac{\alpha' + \beta'}{p} = \frac{1}{p} = \frac{a}{p}$

$\left[\frac{a}{p} \times \frac{b}{p}\right] = \left[\frac{1}{p} \times -3\right] = -3$

-✓

-1

-9

- 10

9