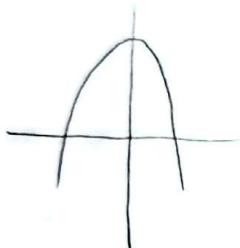


$$\begin{aligned} \alpha^2 + \beta^2 &\rightarrow r \\ \alpha + \beta &\rightarrow \omega \\ \frac{\alpha^2 + \beta^2}{\alpha + \beta} &= \frac{\alpha^2 + \beta^2}{\alpha + \beta} = \frac{\alpha^2 + \beta^2}{\alpha + \beta} = \frac{(\alpha + \beta)(\alpha - \beta + \beta)}{\alpha + \beta} \\ &= (\alpha + \beta) - \alpha\beta = 2\omega - 4 = 19 \end{aligned}$$

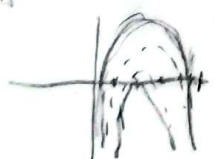


$$\begin{aligned} \frac{\omega - 1/4}{1} &= \frac{\alpha + \beta}{1} \\ \alpha + \beta &= \frac{1/4}{1} \end{aligned}$$

$$\begin{aligned} \alpha - \beta &= \frac{\sqrt{\Delta}}{|a|} \rightarrow \frac{r}{1} k = \frac{\sqrt{r^2 k^2 - r_0}}{1} \\ \frac{k^2}{1} &= \frac{r_0}{1} = 18 \end{aligned}$$

$$\begin{aligned} \frac{1}{9} k^2 &= \frac{r^2 k^2 - r_0}{9} \\ \frac{r - q}{9} k^2 &= -r_0 \\ \frac{8}{9} k^2 &= 18 \\ k^2 &= 27 \end{aligned}$$

$$\begin{aligned} \Delta > 0 \quad r\omega + fm > 0 \quad fm > -r\omega \quad m > \frac{-r\omega}{-1} \quad \frac{c}{a} = -m \rightarrow 2r\omega \rightarrow m = -2r\omega \rightarrow m < -2r\omega \\ \frac{-b}{2a} &= \frac{\omega}{2} \quad \text{این یعنی از ریشه ها بزرگتر باشد کافی است} \quad -2r\omega < m < -2r\omega \end{aligned}$$



$$\begin{aligned} \frac{\omega - \alpha}{1} &= -1 < 0 \rightarrow \frac{-b}{2a} = -1 \rightarrow \frac{-b}{a} = -2 \\ 1 &\leftarrow 0 \end{aligned}$$



$$\alpha^2 + \beta^2 = \left(\frac{\alpha + \beta}{-1} \right)^2 - 2\alpha\beta = \omega \rightarrow r - 2\alpha\beta = 1 \rightarrow \alpha\beta = \frac{1}{2} = \frac{c}{a}$$

$$\omega^2 + 2\omega = \frac{1}{2} \rightarrow y \xrightarrow{\omega=0} y = -\frac{1}{2}$$

$$\min y = 1$$

$$m < 0$$

$$\frac{-\Delta}{fa} = 1$$

$$\frac{-14f + 10m^2 - fm}{15m} = 1 \rightarrow 10m^2 - m - 14f = 15m$$

$$10m^2 - 15m - 14f = 0$$

$$\Delta = 9 + 140 \times 14 = 11 \times 9 \rightarrow \sqrt{\Delta} = 3\sqrt{11}$$

$$m_{1,2} = \frac{15 \pm 3\sqrt{11}}{20} \rightarrow \begin{matrix} \checkmark \\ -1,5 \times \end{matrix}$$

$$C_{\omega, \omega^2} = -\frac{b}{fa} = \frac{15}{9} = \frac{5}{3} = \Gamma$$

$$a' = \alpha \beta \rightarrow \alpha \beta = \frac{b}{a} \rightarrow \alpha a - 1 = a' \rightarrow a' - \alpha a + 1 = 0$$

$$(a-1)^2 \rightarrow \underline{a=1}$$

$$x^2 \rightarrow \infty \quad x^2 - \sqrt{x} - \Delta = 0 \quad \Delta = 99 \rightarrow x^2 = \frac{\sqrt{1+4\Delta}}{2} = K$$

$$P = \frac{c}{a} \rightarrow -\Delta \Rightarrow P \cdot \infty \Rightarrow \text{فقط في } x^2 = K \rightarrow x_{1,2} = \sqrt{K}$$

$$\Rightarrow S = 0 \quad P = K \Rightarrow 2P^2 \rightarrow 2P + 5S = 2P^2 = 2K^2 = \frac{(1 + \sqrt{1+4\Delta})^2}{2}$$

$$u = -\frac{b}{fa} \rightarrow \frac{f}{k}$$

$$y = \frac{-\Delta}{fa} \rightarrow \frac{-14 - 2fk}{fk} = -\frac{f+4k}{k}$$

$$-\frac{f-4k}{k} = \frac{f_0}{9} = \left(\frac{10}{14}\right)$$

$$\rightarrow \frac{f+4k}{k} = -f \times \frac{f}{k} - f \rightarrow -\frac{f+4k}{k} = \frac{-14-fk}{k} \rightarrow 14 = 4k \quad k=9$$

$$-m - \omega = -m\omega^2 + m\omega + 1$$

$$m\omega^2 - (m+1)\omega - (1+m) = 0$$

$$\Delta < 0 \quad m^2 + 4m + 1 + fm + fm^2 = 0$$

$$am^2 + 4m + 1 = 0$$

$$\Delta = 16 - 4 = 12$$

$$\frac{-4 \pm \sqrt{12}}{2} = -2 \pm \sqrt{3}$$

$$-1 < m < -\frac{1}{\omega}$$

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