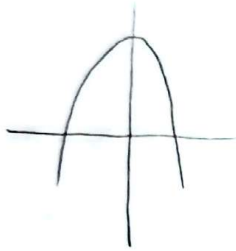


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$$\begin{aligned} \alpha^2 + \beta^2 &\rightarrow r \\ \alpha + \beta &\rightarrow \omega \\ \frac{\alpha^2 + \beta^2}{\alpha + \beta} &= \frac{\alpha^2 + \beta^2}{\alpha + \beta} = \frac{\alpha^2 + \beta^2}{\alpha + \beta} = \frac{(\alpha + \beta)(\alpha - \beta + \beta)}{\alpha + \beta} \\ &= (\alpha + \beta) - \alpha\beta = 25 - 4 = 19 \end{aligned}$$



$$\frac{19 - 1/5}{1} = \frac{\alpha + \beta}{1}$$

$\alpha + \beta = 1/5$

$$\begin{aligned} \alpha - \beta &= \frac{\sqrt{\Delta}}{|a|} \rightarrow \frac{r}{1} k = \frac{\sqrt{r^2 k^2 - r_0}}{1} \\ \frac{k^2}{1} &= \frac{19}{1} = 19 \end{aligned}$$

$$\begin{aligned} \frac{1}{9} k^2 &= \frac{r^2 k^2 - r_0}{9} \\ \frac{r - q}{9} k^2 &= -r_0 \\ \frac{8}{9} k^2 &= 18 \\ k^2 &= 20.25 \end{aligned}$$

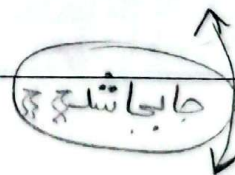
$$\begin{aligned} \Delta > 0 \quad 19 + 4m > 0 \quad 4m > -19 \quad m > -4.75 \\ \frac{-b}{2a} &= \frac{5}{2} = 2.5 \\ -4.75 < m < -2.25 \end{aligned}$$



$$\frac{19 - 5}{1} = 14 \rightarrow \frac{-b}{2a} = -1 \rightarrow \frac{-b}{a} = -2$$

$$\alpha^2 + \beta^2 = (\alpha - \beta)^2 + 2\alpha\beta = 1 \rightarrow 1 - 2\alpha\beta = 1 \rightarrow \alpha\beta = 0 \rightarrow \alpha = 0 \text{ or } \beta = 0$$

$$\alpha^2 + \beta^2 = \frac{1}{1} = 1 \rightarrow \alpha = 0 \text{ or } \beta = 0$$



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$$\min y = 2$$

$$m < 0$$

$$\frac{-\Delta}{fa} = 2$$

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

$$10m^2 - 11m - 14f = 0$$

$$\Delta = 9 + 10 \times 14 \times 9 = 11 \times 9 \rightarrow \sqrt{\Delta} = 3\sqrt{11}$$

$$m_{1,2} = \frac{11 \pm 3\sqrt{11}}{20} \quad \begin{matrix} > 0 \\ < -1/5 \end{matrix} \quad \checkmark$$

$$C_{\text{opt}} = -\frac{b}{fa} = -\frac{14}{5} = -2.8 \quad \checkmark$$

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

$$(a-1)^2 \rightarrow a = 1 \quad \checkmark$$

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

$$P = \frac{c}{a} \rightarrow -\Delta \Rightarrow P < 0 \Rightarrow \text{فقط نقطة} \rightarrow x^2 = K \rightarrow x_1 = \sqrt{K}$$

$$\Rightarrow S = 0 \quad P = K \Rightarrow 2P^2 \rightarrow 2P + 5S = 2P^2 = 2K^2 = 2 \times \frac{(\sqrt{x} + \sqrt{99})^2}{4}$$

$$2 \left(\frac{99 + 99 + 14\sqrt{99}}{4} \right) = 99 + 7\sqrt{99}$$

$$u = -\frac{b}{fa} \rightarrow -\frac{14}{5}$$

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

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

$$\rightarrow \frac{f+4k}{k} = -f \times \frac{f}{k} - f \rightarrow -\frac{f+4k}{k} = -\frac{14-fk}{k} \rightarrow 14 = 4k \quad k = 3.5 \quad \textcircled{1/2}$$

$$-m - x_0 = -m x_0^2 + m x_0 + 1$$

$$m x_0^2 - (m+1)x_0 - (1+m) = 0$$

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

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

$$\Delta = 16 - 4a = 16$$

$$\frac{-4 \pm 4}{2a} = \frac{-1}{a}$$

$$\left(-\frac{1}{a} \right)$$

$$-1 < m < -\frac{1}{a} \quad \textcircled{P}$$

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

$u_5 = \frac{r-a}{r} = -1 \leadsto -\frac{b}{ra} = -1 \leadsto -\frac{b}{a} = -r = 5$
طول راس موهن سیاهین دونه‌ای هم برض است (شکل موهن! ستور کین ...)

$y = a(n+1)^2 \leadsto y = an^2 + 2an + a + 1$

$d^r + \beta^r = 5^r - 2p \leadsto (-r)^r - 2p = 4 \rightarrow p = -\frac{1}{r} \leadsto \frac{a+1}{a} = -\frac{1}{r} \leadsto 2a + 2c - a \rightarrow a = \frac{1}{r}$

$\text{محض ازبدا} = a - 1 \leadsto -\frac{r}{r} + 1 = \frac{1}{r}$

$u_5 = u_5 = -\frac{b}{ra} = \frac{f}{rk} = \frac{r}{k}$

$y_5 = k\left(\frac{r}{k}\right)^2 - f\left(\frac{r}{k}\right) - 4 = \frac{f}{k} - \frac{r}{k} - 4 = -\frac{f}{k} - 4$

$-\frac{f}{k} - 4 = -f\left(\frac{r}{k}\right) - 4 \leadsto \frac{f}{k} = r \rightarrow k = r$

$\text{موض موهن} = -\frac{f}{k} - 4 = -r - 4 = -8$

$|\alpha - \beta| = \frac{\sqrt{\Delta}}{|\alpha|} \rightarrow \frac{\sqrt{(y_1 k)^2 - f(\Delta)}}{1} = \frac{f}{r} k \rightarrow fk^2 - y = \frac{14}{9} k^2$

$\frac{y_1 k^2}{9} = y \rightarrow k^2 = 9 \rightarrow \left[\frac{k^2}{r}\right] = \left[\frac{9}{r}\right] = [4, 0] = 4$