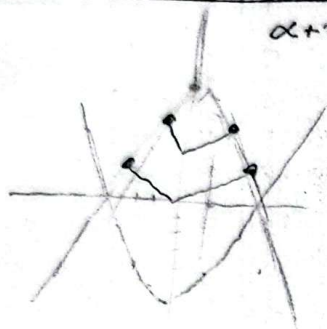


$$\frac{(\alpha^r \beta^r) \alpha + \beta^w}{(\alpha + \beta) \beta^r} = \frac{\beta^r (\alpha^r + \beta^w)}{\beta^r (\alpha + \beta)}$$

$$\alpha + \beta = 8 = \Delta$$

$$\alpha \beta = p = 2$$

$$= \frac{8^r - 2ps}{8} = \frac{128 - (2 \times 2 \times 2)}{8} = \frac{96}{8} = \boxed{19}$$



معادله درجه ۳، ریشه‌های حقیقی و مجازی دارد.

$$S_{\alpha, \beta} = \frac{-10 + 3}{2} \times 2 = \boxed{1, 5}$$

جمع در نقطه هم عرض، با دو نقطه دیگر برابر است.

$$|\alpha - \beta| = \frac{\sqrt{\Delta}}{|\alpha|} = \frac{\sqrt{4K^2 - 10}}{1} = \frac{4}{c} K$$

$$\sqrt{4(K^2 - 5)} = 2 \sqrt{K^2 - 5} = \frac{4}{c} K \rightarrow \frac{2}{c} K = \sqrt{K^2 - 5} \rightarrow \frac{4}{9} K^2 = K^2 - 5$$

$$\times \frac{9}{5} \rightarrow 9 = K^2 \rightarrow \left[\frac{K^r}{2} \right] = \left[\frac{9}{2} = 4, 5 \right] = \boxed{4}$$

مجموع دو نقطه هم عرض

$$\left| \frac{-\Delta + 3}{2} \right| = \left| -1 \right| = \frac{b}{2a} \rightarrow b = 2a$$

$$-1 = -\frac{\Delta}{2a} \rightarrow -\Delta = -2a \rightarrow \Delta = 2a$$

$$S = \alpha + \beta = -\frac{b}{a} = -\frac{2a}{a} = -2$$

$$S = \alpha + \beta = -2$$

$$\alpha + \beta + 10\alpha\beta = 8$$

$$\alpha + \beta = -2$$

$$\alpha\beta = -\frac{1}{5}$$

$$-2c = c + 1 \rightarrow c = \boxed{-\frac{1}{3}}$$

$$S = \alpha + \beta = -\frac{b}{a} < 2 \times \frac{9}{5} \rightarrow -\frac{\Delta}{-1} < 4 \checkmark \rightarrow S = \Delta$$

$$\Delta > 0 \rightarrow 10 + 4m > 0 \rightarrow 4m > -10 \rightarrow m > -\frac{5}{2}$$

$$0 = m^2 - 2m - 10 \rightarrow \alpha < \beta \rightarrow \beta = \frac{2 + \sqrt{4 + 40}}{2} < \frac{9}{5} \rightarrow 2 + \sqrt{11} < \frac{9}{5}$$

$$\sqrt{10 + 4m} < 1 \rightarrow 10 + 4m < 1 \rightarrow 4m < -9 \rightarrow m < -\frac{9}{4}$$

$$\rightarrow -\frac{9}{4} < m < -\frac{5}{2} \rightarrow m = \{-\frac{9}{4}, -\frac{5}{2}, -\frac{3}{2}, -\frac{1}{2}\}$$

میدار است $m > 0$

ext $\left| -\frac{b}{2a} \right| \rightarrow$

$+r = -\frac{\Delta}{2a} \Rightarrow \frac{144 - 4m(\Delta m - 1)}{4m} = r$

$\rightarrow -\Delta m = 144 - 4m^2 + 4m \rightarrow 4m^2 - 4m - 144 = 0 \rightarrow \Delta m^2 - m - 36 = 0$

$\rightarrow m = \frac{+r \pm \sqrt{9 + 4r^2}}{2} = \frac{+r \pm r^2}{2} \rightarrow \frac{r(r-1)}{2} = -36 \times 0.01 \rightarrow m > 0$

مقدار است $-\frac{b}{2a} = \frac{1r}{2 \times m} = \frac{4}{14} = \boxed{Y}$ $\frac{r(r-1)}{2} = -36$ ✓

$\alpha = \sqrt{\alpha\beta} \rightarrow \rho = r\alpha - 1 = r\sqrt{\alpha\beta} - 1 = \alpha\beta \xrightarrow{\text{Subst}}$

$t^r - r t + 1 = 0 \rightarrow t = 1 \rightarrow \boxed{\alpha = 1}$

$\alpha^r - r\alpha - \Delta = 0 \xrightarrow{\Delta} \frac{V \pm \sqrt{49 + 40}}{r} \rightarrow \frac{V - \sqrt{89}}{r} \times 0.01$

$\rightarrow \alpha = \frac{+ \sqrt{\frac{V + \sqrt{89}}{r}}}{r} \rightarrow \underline{S = 0}, \underline{P} = -\sqrt{\frac{V + \sqrt{89}}{r}} \times \sqrt{\frac{V + \sqrt{89}}{r}} = -\frac{V + \sqrt{89}}{r}$

$\rightarrow rP^r - rSP + rS = r \times \left(\frac{V + \sqrt{89}}{r} \right)^2 = \frac{89 + 89 + 14\sqrt{89}}{r} = \boxed{89 + V\sqrt{89}}$

ext $\left| -\frac{b}{2a} \right| = \frac{\frac{r}{K}}{rK} = \frac{r}{K}$
 $\left| -\frac{\Delta}{2a} \right| = \frac{-(14 + rK)}{2rK} = -\frac{r}{K} - 4 = -r\left(\frac{r}{K} + 4\right) \rightarrow -r\left(\frac{r}{K} + 4\right) = -\frac{1}{K} - 4$

$\frac{-4K - 4}{K} = \frac{-4K - 1}{K} \rightarrow 4 = rK \rightarrow \underline{K = 2} \rightarrow \text{ext} \left| \frac{1}{\sqrt{20}} \right| \rightarrow -4 - 4 = -1$
 مقدار است $\boxed{-1}$

$-m - n = -m\alpha^r + m\alpha + 1 \rightarrow -m\alpha^r + (m+1)\alpha + (m+1) = 0$

$\rightarrow \Delta < 0 \rightarrow (m+1)^2 + 4m(m+1) < 0 \rightarrow m^2 + 5m + 1 < 0$

$\rightarrow \Delta m^2 + 4m + 1 < 0 \rightarrow \frac{-4 \pm \sqrt{14}}{2} \rightarrow \frac{-4 - 4}{2} = -1, \frac{-4 + 4}{2} = 0$
 $-1 < m < 0 \rightarrow \boxed{0}$