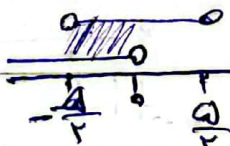


$$m < 0 \text{ (I)}, \Delta > 0 \Rightarrow b^2 - 4ac > 0 \Rightarrow r_1 - r_2 > 0$$

$$\Rightarrow r_1 > r_2 \Rightarrow m^2 < \frac{r_1}{r_2} \Rightarrow -\frac{1}{r} < m < +\frac{1}{r} \text{ (II)}$$

(I) $\cap$ (II)



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

$$y = ax^r + bx + c \Rightarrow y = ax^r + sx + p$$

$$\Rightarrow y = ax^r + \left(\frac{r-\sqrt{a}}{r} + \frac{r+\sqrt{a}}{r} \right)x + \left(\frac{r-\sqrt{a}}{r} \right) \left(\frac{r+\sqrt{a}}{r} \right)$$

$$y = ax^r + \left(-\frac{4}{r} \right)x + \frac{9-a}{4} \Rightarrow y = ax^r + rx + \frac{r}{r^2}$$

$$\Rightarrow y = x^r + rx + \frac{r}{r^2}$$

$$rx^r - 1x + m + r = 0, \alpha \in B, rx^r + B^r = 1r, m?$$

$\Delta = b^2 - 4ac$

$$\Delta > 0 \Rightarrow 4r - 4r^2(m+r) > 0 \Rightarrow 4r - 4rm - 4r^2 > 0$$

$$\Rightarrow 1m < r \Rightarrow m < r$$

$$rx^r + B^r - 1r = 0$$

$$x^r + B^r = r - r^2 = \left(\frac{1}{r} \right)^r - 1$$

$$m < 0, \Delta > 0 = 14 - r_m \left(\frac{m}{r} + v \right) > 0$$

$$14 - r_m^2 - r \Delta > 0 \Rightarrow r_m^2 < -15$$

$$r_a + r = t$$

$$r_a^2 + r_a + r = 0 \Rightarrow r_a^2 + r_a + \frac{t}{2} + \frac{t}{2} - 1$$

$$t^2 - t r + \cancel{r^2} + r_a^2 + \overset{t}{\overbrace{r_a + r}} + r - 1$$

$$t^2 - t r + t + r_a^2 + r - 1$$