

$$S(h, k) \rightarrow y = a(n-h)r^h + k \xrightarrow{A(-1,1)}$$

$$y = a(n-(-1))r^1 + 9 \rightarrow y = a(n+1)r + 9 \xrightarrow{B(1)} 1a(r+1)r + 9$$

$$\rightarrow 1 = 19a + 9 \rightarrow a = -\frac{1}{r} \rightarrow y = -\frac{1}{r}(n+1)r + 9$$

$$\Rightarrow y = -\frac{1}{r}n^2 - n + \frac{1}{r}$$

$$2n + mn + m + 4 = 0 \rightarrow \text{درای ۲ شرط است}$$

$$\Delta > 0 \rightarrow m^2 - 4(r)(m+4) > 0 \rightarrow (m+2)(m+6) > 0$$

$$\ln 2 \ln 3 \ln 4 \Rightarrow -6 < m < 6$$

$$S > 0 \rightarrow -\frac{b}{a} > 0 \rightarrow -\frac{m}{r} > 0$$

$$P > 0 \rightarrow \frac{c}{a} > 0 \rightarrow \frac{m+4}{r} > 0 \rightarrow m > -4$$

$$p = \frac{r-m}{r}$$

$$s = -\frac{r-m-1}{r} = \frac{1-rm}{r}$$

$$\alpha + \beta = \frac{1}{\alpha\beta}$$

$$s = \frac{1}{p}$$

مجاوری (۱) و (۲) را
درای ۳ شرط حقیقی است

$$\Delta > 0 \rightarrow m = \frac{r}{r-1}$$

$$m = -1$$

$$\Delta < 0 \times$$

$$\frac{1-rm}{r} = \frac{r}{1-m}$$

$$(r-m)(1-rm) = 9$$

$$rm^2 - \Delta m + r = 9$$

$$rm^2 - \Delta m + r = 0$$

$$(rm - \Delta)(m+1) = 0$$

$$m = -1$$

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

$$x = n^2 - 1 \rightarrow n^2 - n - 1 = 0 \rightarrow n_1 + n_2 = 1$$

$$n_1 \cdot n_2 = -1$$

$$y_1 = n_1^2 + \frac{1}{n_1} \rightarrow n_1^2 = \Delta n_1 + 1$$

$$y_2 = n_2^2 + \frac{1}{n_2} \rightarrow n_2^2 = \Delta n_2 + 1$$

$$y_1 + y_2 = \Delta n_1 + \Delta n_2 + \frac{1}{n_1} + \frac{1}{n_2} + 1 \rightarrow y_1 + y_2 = \Delta + 1 + \frac{1}{n_1} + \frac{1}{n_2}$$

$$y_1 \cdot y_2 = (n_1^2 + \frac{1}{n_1})(n_2^2 + \frac{1}{n_2}) = n_1^2 n_2^2 + \frac{n_1^2}{n_2} + \frac{n_2^2}{n_1} + \frac{1}{n_1 n_2}$$

$$\Rightarrow y_1 \cdot y_2 = -\frac{r-1}{r}$$

$$t^{\frac{r}{r-1}}$$

$$(t^{\frac{r}{r-1}} + \frac{1}{t^{\frac{r}{r-1}} + 1})(t^{\frac{r}{r-1}} - 1) = t^{\frac{r}{r-1}} - \frac{1}{t^{\frac{r}{r-1}}} \rightarrow t^{\frac{r}{r-1}} - \frac{1}{t^{\frac{r}{r-1}}} = r t \rightarrow t^{\frac{r}{r-1}} - 1 = r t^{\frac{r}{r-1}}$$

$$S = -\frac{r}{1} = r$$

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

$$3m^2 - am + c = 0 \rightarrow \text{یک ریشه ۳ برابر ریشه دیگر} \rightarrow \alpha = 3\beta \rightarrow \alpha - \beta = \frac{\alpha}{\beta} \rightarrow \alpha = 3\beta \rightarrow \beta = \frac{\alpha}{3}$$

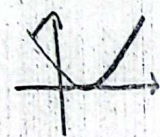
$$\alpha + \beta = \frac{1}{3} \Rightarrow \alpha + \frac{\alpha}{3} = \frac{1}{3} \Rightarrow \frac{4\alpha}{3} = \frac{1}{3} \Rightarrow \alpha = \frac{1}{4}$$

$$\alpha + \beta = -\frac{1}{3} \Rightarrow \alpha + \frac{\alpha}{3} = -\frac{1}{3} \Rightarrow \frac{4\alpha}{3} = -\frac{1}{3} \Rightarrow \alpha = -\frac{1}{4}$$

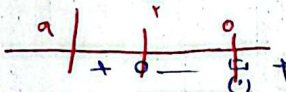
$$\alpha = 3(\alpha + \beta) = \pm 1$$

$$\left. \begin{matrix} a_1 = 1 \\ a_2 = -1 \end{matrix} \right\} \text{اقلات شیه} = 14$$

ازای جنیتها، a سببی $y = am^2 + (r+2a)m$ ریشه ۳ نند

$$\Delta > 0 \rightarrow a > 0 \quad \alpha, \beta > 0 \rightarrow -\frac{r+2a}{a} > 0$$

$$\rightarrow \frac{r+2a}{a} < 0 \rightarrow -\frac{r}{a} < a < 0$$


$$\alpha_1 = -\frac{a}{r}$$

$$\alpha_2 = -\frac{r}{-r} = 1$$

$$\alpha_1 = \alpha_2 \rightarrow -\frac{a}{r} = 1 \rightarrow a = -r$$

$$y = \alpha^2 + am - r \xrightarrow{\delta=1} \alpha^2 + rm - r = 1$$

$$\alpha^2 + rm - r = 0$$

$$(m+2)(m-1) = 0 \rightarrow m = -2 \text{ or } m = 1$$

محور تقارن

$$y_1 = m^2 + am - r$$

$$y_2 = -m^2 - rm + b$$

$$y = -m^2 - rm + b$$

$$1 = -(1)^2 - r(1) + b \rightarrow b = r$$

$$ab = r \times r = 1$$

$$\left\{ \begin{matrix} 3m^2 - am + b = 0 \\ 2am^2 + am - 4 = 0 \end{matrix} \right\} \rightarrow \alpha - \beta = \alpha' + \beta' + 1 \rightarrow \frac{\alpha}{r} = \frac{-\alpha}{2a} + 1 = \frac{1}{r} \Rightarrow \alpha = 1$$

$$s_1 = \frac{a}{r} = \frac{1}{r} \quad s_2 = -\frac{1}{r}$$

$$p = \frac{b}{r} \quad p_2 = -\frac{r}{a} = -r$$

$$\left(\alpha + \frac{1}{r} \right) \left(\beta + \frac{1}{r} \right) = p_2 + \frac{1}{r} s_2 + \frac{1}{r^2}$$

$$\rightarrow \frac{b}{r} - r + \frac{1}{r} \left(-\frac{1}{r} \right) + \frac{1}{r^2} = -r - \frac{1}{r^2} + \frac{1}{r^2} = -r \quad b = -r$$

$$\left[\frac{a}{r} \right] = \left[\frac{1 \times (-r)}{r} \right]$$

$$\left[-\frac{1}{r} \right] = -r$$

$$\left\{ \begin{matrix} y_1 = m^2 + 7m + m = 0 \\ y_2 = m^2 + 2m - 2m = 0 \end{matrix} \right\} \rightarrow \text{ریشه مشترک} \rightarrow \alpha$$

$$m^2 + 7m + m = m^2 + 2m - 2m \rightarrow 8m + 6m = 0 \rightarrow m = -m \rightarrow \alpha = -m$$

$$(-m)^2 + 7(-m) + m = 0 \rightarrow m^2 - 6m = 0 \rightarrow m = 0 \text{ or } m = 6$$

$$y_1 = m^2 + 7m + m = 0 \rightarrow m = 0 \text{ or } m = -6$$

$$y_2 = m^2 + 2m - 2m = 0 \rightarrow m = 0 \text{ or } m = 2$$

$$r_1 = 1 \rightarrow \text{اقلات شیه} = 4$$