

توجه: این که مشترک هست؟
 $x^2 + 2x = ax - \varepsilon$

$$ax^2 + 2ax = ax^2 - \varepsilon \Rightarrow a = -2 \leftarrow x = a$$

$\varepsilon = -\varepsilon$

$2x + b \xrightarrow{(1, \varepsilon)}$ $\varepsilon + b = 2$ $b = -1$ $\frac{x^2 + a}{2x + 1} \xrightarrow{(2, \varepsilon)}$

$$f(1) = \frac{(1)^2 + 11}{2(1) + 1} = \frac{12}{3} = 4 = \varepsilon$$

$$\frac{x+a}{x+1} = 2 \Rightarrow \varepsilon + a = 12$$

$a = 11$

۱- و ε مخرج را صفر می‌کند

$$(2x^2 + ax + b) = 0$$

$$\begin{bmatrix} -1 & 2 & -a & +b \\ \varepsilon & 2\varepsilon & +\varepsilon a & +b \end{bmatrix} \Rightarrow 2 - a + b = 2\varepsilon + \varepsilon a + b \Rightarrow \frac{-\varepsilon = -2a}{a = -\frac{\varepsilon}{2}}$$

$$\frac{b = -2\varepsilon}{b = -2}$$

$$f(1) = \frac{2(1) + 1}{2(1)^2 - 4(1) - 1} = \frac{3}{-1} = -3$$

$$-\varepsilon(-1)^2 + a(-1) + b = 0 \quad -\varepsilon - a + b = 0 \quad b - a = \varepsilon$$

$$a^2 - \varepsilon(-\varepsilon)(b) = 0 \quad a^2 + 14b = 0$$

$$b - a = \varepsilon \quad b = a + \varepsilon$$

$$a^2 + 14b = 0 \quad a^2 + 14a + 4\varepsilon = 0 \quad (a + 1)^2 = 0 \quad a = -1$$

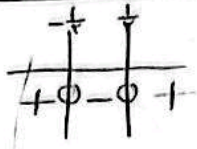
$$-1 + \varepsilon = b \quad b = -\varepsilon \quad a + b = -1 - \varepsilon = -2$$

$$m^2 - \varepsilon = 0 \quad m^2 = \varepsilon \quad m = \pm \sqrt{\varepsilon}$$

$$m^2 - \varepsilon < 0 \Rightarrow -2 < m < 2$$

$$|m| < 2 \Rightarrow -2 < m < 2$$

$$f(x) = \left(x - \frac{1}{\alpha}\right) \left(x + \frac{1}{\alpha}\right)$$



$$\begin{aligned} r &= \frac{1}{\alpha} & r &= -\frac{1}{\alpha} \\ x &= \frac{1}{\alpha} & y_m &= -1 \\ & & q &= -\frac{1}{\alpha} \end{aligned}$$

$$D_f = \left(-\infty, -\frac{1}{\alpha}\right) \cup \left[\frac{1}{\alpha}, \infty\right)$$

6

$$m > 0 \quad \Delta \leq 0$$

$$\varepsilon m^2 - \varepsilon m \Rightarrow \varepsilon m(m-1) \leq 0 \quad \cdot \langle m \leq 1 \rightarrow \textcircled{1}$$

$$\textcircled{2} m > 0 \quad 1 \wedge r \Rightarrow \cdot \langle m \leq 1 \rightarrow f(x) = 1$$

$$\Rightarrow 0 \leq m \leq 1$$

7

$$\begin{aligned} r &\propto \frac{1}{\alpha} + 1 \quad r = r\left(\frac{1}{\alpha}\right) + 1 \\ k &= 0 \quad k + a = \frac{1}{\alpha} \end{aligned}$$

8

$$\frac{\alpha m^2 - \varepsilon}{\alpha m + r} = \frac{(\alpha x + r)(\alpha x - r)}{(\alpha x + r)} = \alpha x - r \Rightarrow \alpha x - r = \alpha x + b$$

$$b = -r$$

$$f\left(-\frac{r}{\alpha}\right) = \alpha a \left(-\frac{r}{\alpha}\right) + r = -r + r$$

$$g\left(-\frac{r}{\alpha}\right) = \alpha \left(-\frac{r}{\alpha}\right) + b = -r + b$$

$$g\left(-\frac{r}{\alpha}\right) = -r - r - \varepsilon \rightarrow \frac{a-b}{\alpha - r} = \frac{c - (-r)}{\alpha - r} = a$$

$$-r + b = -\varepsilon \quad a = \alpha$$

9

$\alpha + r$

$$g(r) = r + r = \varepsilon$$

$$f(r) = \alpha a^r + r a + \varepsilon \Rightarrow \alpha a^r + r a - \varepsilon = 0$$

$$r + a - r = 0 \quad (a + r)(a - 1) = 0 \quad a = -r \quad a = 1$$

10