

تعداد ای که مشترک هستند؟  
 $x^2 + 2x = ax - \varepsilon$

$x^2 + 2a = ax - \varepsilon \Rightarrow a = -2 \leftarrow x = a$   
 $\varepsilon = -6$

۹

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

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

$\frac{x+a}{x+1} = 2 \Rightarrow \varepsilon + a = 12$   
 $\boxed{a = 11}$

۱- و ۴ مخرج را صفر می‌کنند

$\begin{cases} 2x^2 + ax + b = 0 \\ -1 \rightarrow 2x - a + b \\ \varepsilon \rightarrow 2x + \varepsilon a + b \end{cases} \Rightarrow 2 - a + b = 2 + \varepsilon a + b \Rightarrow$

$\begin{cases} -2 = \varepsilon a \\ a = -4 \\ b = -2 \end{cases}$

$f(1) = \frac{2x+1}{2x^2-4x-1} = \frac{-5}{-14}$

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

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

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

$a^2 + 4b = 0 \quad a^2 + 4a + 8 = 0 \quad (a + 2)^2 = 0 \quad a = -2$

$-2 + 2 = b \quad b = 0 \quad a + b = -2 - 0 = -2$

۵, ۱۷۵

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

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

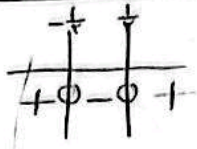
$I \rightarrow -2 < m < 2$

$x = 1$  می‌تواند مخرج آن عبارت باشد

$(n-1)^2 = n^2 - 2n + 1 \quad m = -2 \quad II$

$I \cup II \rightarrow [-2, 2]$

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



5

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

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

6

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

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

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

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

6

7

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

6

8

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

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

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

$$\begin{aligned} g\left(-\frac{r}{\alpha}\right) &= -r - r - \varepsilon \rightarrow a - b = \alpha - (-r) = \alpha \\ | -r + r &= -\varepsilon \quad a = \alpha \end{aligned}$$

$$\begin{aligned} a - b &= \alpha - (-r) = \alpha \\ \frac{\alpha^2 - \varepsilon}{\alpha - r} &= \frac{(\alpha + r)(\alpha - r)}{(\alpha - r)} \end{aligned}$$

$\alpha + r$

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

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

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

6

10