

$$u^r - (a+1)u + a = 0 \Rightarrow |\alpha - \beta| = \frac{\sqrt{\Delta}}{|\alpha|} = \frac{\sqrt{a^2 + 1 + 2a - 2a}}{1} = 1 \quad \text{✓}$$

$$\Rightarrow |a - 1| = 1 \Rightarrow a = 2 \text{ or } 0 \rightarrow \text{غير قابل قبول} \Rightarrow u^r - 1 \cdot u + b = 0 \Rightarrow |\alpha - \beta| = \frac{\sqrt{\Delta}}{|\alpha|} = \frac{\sqrt{1 - 4b}}{1}$$

$$\Rightarrow 1 - 4b = 1 \Rightarrow b = 0 \quad |\alpha - \beta| = 1 \quad \text{✓}$$

$$\text{ext} \begin{cases} u = \frac{-b}{\alpha} = \frac{-a}{-\alpha} = \frac{1}{\alpha} \\ y = -\frac{a}{\alpha} + \frac{a}{\alpha} + \alpha = \frac{a+1}{\alpha} \end{cases} \quad \frac{a+1}{\alpha} = \frac{b}{\alpha} - \frac{b}{\alpha} - 1 \Rightarrow a+1 = -\alpha \Rightarrow a = -1 - \alpha$$

$$\text{ext} \begin{cases} -\frac{b}{\alpha} = \frac{b}{\alpha} = \frac{1}{\alpha} \rightarrow u \\ y = \frac{b}{\alpha} - \frac{b}{\alpha} - 1 = \frac{-b-1}{\alpha} \end{cases} \quad \frac{-b-1}{\alpha} = \frac{1}{\alpha} - \frac{1}{\alpha} + \alpha = \frac{-\epsilon}{\alpha} \Rightarrow -b-1 = -\epsilon \Rightarrow b = -\epsilon - 1$$

$$\Rightarrow b - a = -\epsilon - 1 - (-1) = -\epsilon \quad \text{✓}$$

$$y = \alpha a u^r + \epsilon u + \beta \Rightarrow \alpha \beta = \frac{\beta}{\alpha} \Rightarrow \alpha = \frac{1}{\beta} \quad \text{✓}$$

$$\times \text{ اگر } \alpha = \frac{1}{\delta} \rightarrow \alpha \delta = \frac{1}{\delta} \cdot \frac{1}{\delta} + \epsilon \cdot \frac{1}{\delta} + \beta = 0 \Rightarrow \beta = -1 \rightarrow \text{غير قابل قبول}$$

$$\checkmark \text{ اگر } \alpha = \frac{-1}{\delta} \rightarrow \alpha \delta = \frac{-1}{\delta} \cdot \frac{1}{\delta} + \epsilon \cdot \frac{-1}{\delta} + \beta = 0 \Rightarrow \beta = 1 \quad \text{✓}$$

$$\Rightarrow y = -\alpha u^r + \epsilon u + 1 \quad \text{ext} \begin{cases} u = \frac{-b}{\alpha} = \frac{\epsilon}{\delta} \\ y = -\alpha \cdot \frac{\epsilon}{\delta} + \epsilon \cdot \frac{\epsilon}{\delta} + 1 = \frac{\epsilon}{\delta} \end{cases} \Rightarrow \text{لا جواب}$$

1. $\alpha = 1$ از اعداد \Rightarrow حاصل ضرب α و β \Rightarrow جمع آن ϵ

$$\Rightarrow a + b = a^r + b^r - 1 \Rightarrow 1 + b = 1 + b^r - 1 \Rightarrow b^r - b - 1 = 0 \quad \text{✓}$$

$$\Rightarrow b = \epsilon, -1 \rightarrow \text{غير قابل قبول} \Rightarrow a + b = 1 + \epsilon = \delta \quad \text{✓}$$