

$$r_m^r - r_{m-1} \xrightarrow{\text{مشتق}} \frac{d}{dx} \left(\frac{1}{r} \right) \rightarrow (n-1) \left(n + \frac{1}{r} \right)$$

$$r_m^r - r_{m-1} \xrightarrow{\text{مشتق}} \frac{d}{dx} \left(\frac{1}{r} \right) = \left(\frac{-1}{r^2} \right) \rightarrow (n+1) \left(n - \frac{1}{r} \right)$$

$$\frac{(n-1) \left(n + \frac{1}{r} \right) (n+1) \left(n - \frac{1}{r} \right)}{(1+n) (-1) (n-1)} = \frac{(n + \frac{1}{r}) (n - \frac{1}{r}) (-1)}{n \neq \pm 1}$$

$$\begin{cases} -n^r - \frac{1}{r} n + \frac{1}{r} = 0 \\ n_{\text{new}} = f\left(\frac{-b}{a}\right) \\ a = \frac{1}{r} = \frac{1}{r} \\ f\left(\frac{-1/r}{1/r}\right) = \frac{1}{189} \end{cases}$$

$$r(\alpha + \beta) = \omega \alpha \beta + v$$

$$\alpha^r + \beta^r = S^r - r p = ?$$

$$rS = \omega p + v$$

$$S = \frac{-b}{a} = \frac{m+r}{m}$$

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

$$\begin{cases} \frac{r_{m+1}}{m} = \frac{-1}{m} + \frac{vm}{m} \\ r_{m+1} = vm - 1 \\ \varepsilon m = 1 \\ m = \varepsilon \end{cases} \rightarrow \begin{cases} S = \frac{1}{\varepsilon} = \frac{r}{r} \\ p = \frac{-r}{\varepsilon} = \frac{-1}{r} \end{cases}$$

$$\begin{aligned} \left(\frac{r}{r}\right)^r - r\left(\frac{1}{r}\right) &= \\ \frac{1}{\varepsilon} + 1 &= \frac{1}{\varepsilon} \end{aligned}$$

$$\frac{\varepsilon \alpha + \beta}{\omega \beta^r} \times \frac{\alpha}{\alpha} = \frac{\varepsilon \alpha^r + p}{\omega p^r \alpha^r} \rightarrow x \frac{\beta^r}{\beta^r} = \frac{(r p^r \alpha^r) + (p^r \times \beta^r)}{\omega p^r} = \frac{p^r (\varepsilon \alpha^r + p^r \beta^r)}{\omega p^r}$$

$$= \frac{\varepsilon \alpha^r + p^r \beta^r}{\omega p^r} \xrightarrow[p^r = \varepsilon]{p = \frac{c}{a} = \frac{1}{r}} \frac{\varepsilon \alpha^r + \varepsilon \beta^r}{\omega \times r} = \frac{\varepsilon (\alpha^r + \beta^r)}{\varepsilon \times \omega} = \frac{S^r - r S p}{\omega}$$

$$\xrightarrow[S^r = 12\omega]{S = \frac{-b}{a} = \frac{1}{r}} = \frac{\omega^r - r(\omega)^r}{\omega} = \frac{\omega(\omega^r - 1)}{\omega} = \omega^r - 1 = 19$$

$$y = a n^r + b n + c$$

$$n = 0 \rightarrow y = \varepsilon \Rightarrow 0(a) + 0(b) + c = \varepsilon \rightarrow c = \varepsilon$$

$$n = 1 \rightarrow y = 1a + 1.0 = 1\varepsilon \Rightarrow \varepsilon a + 1b + \varepsilon = 1\varepsilon \Rightarrow 1a + b = 0$$

$$n = -1 \rightarrow y = 1a + 1.0 = \varepsilon \Rightarrow 1a - 1b + \varepsilon = \varepsilon \Rightarrow 1a - b = 0$$

$$\text{حل النظام} = \begin{cases} a = \frac{b}{1} \\ a = \frac{-r}{r(1)} = \frac{-1}{r} \end{cases}$$

$$\begin{aligned} \omega a = \omega &\Rightarrow a = 1 \\ a = 1 &\Rightarrow b = r \end{aligned}$$

$$\text{حل النظام} \neq y = n \rightarrow \boxed{n > 0}$$

$$r_m^r + (m+1)n + m + 1 = n$$

$$r_m^r + mn + m + 1 = 0$$

$$m = -\varepsilon$$

$$\text{حل النظام} \Rightarrow \text{حل النظام} \Rightarrow \text{حل النظام}$$

$$\Delta = 0 \quad m^r - 1m - r = 0$$

$$(m-1r)(m+1) = 0$$

$$\begin{cases} m = -\varepsilon \xrightarrow{\text{حل النظام}} r_m^r - \varepsilon n + 1 = 0 \rightarrow n = 1 \\ m = 1r \xrightarrow{\text{حل النظام}} r_m^r + 1r n + 1 = 0 \rightarrow n = -\frac{r}{1} \end{cases}$$

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