

مسائل (حل) بالخطوات

$$r^{A(1)+B} = 1 \xrightarrow{r^0} \Rightarrow A+B=0$$

$$r^{rA+B} = r^r \Rightarrow rA+B=r$$

$$\begin{cases} A+B=0 \\ rA+B=r \end{cases}$$

$$rA=r \Rightarrow A=1$$

$$B=-1$$

$$f(n) = r^{n-1} \xrightarrow{n=0} y = \frac{1}{r} \Rightarrow (0, \frac{1}{r})$$

$$\log_r (r^n + 1)$$

$$= n + r \rightarrow r^{n+r} = \epsilon^n + 1 \rightarrow \epsilon^n - \lambda \times r^n + 1 = 0$$

$$r^n = t \Rightarrow t^r - \lambda t + 1 = 0 \rightarrow (t-r)(t-\lambda) = 0$$

$$r = r^n \Rightarrow \log_r r = n, \quad r^n = \lambda \Rightarrow \log_r \lambda = n$$

$$\log_r r + \log_r \lambda = \log_r \lambda$$

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

$$\log_r r = \log_r r - \log_r r \rightarrow t^r + (r-rt+t)(r+t+r)$$

$$= t^r + (r-t)(t+r) = t^r + \epsilon - t^r = \epsilon$$

$$\log (n^r - rn + 1) + r \log (1-n) = d$$

$$\log^{1-n} = t \quad (\epsilon \text{ حل})$$

$$\log^{(1-n)^r} \Rightarrow r \log^{1-n} + r \log^{1-n}$$

$$= d \log^{1-n} = d \Rightarrow \log^{1-n} = 1 \Rightarrow n = -9$$

$$\log_r (-n) = r$$

Arman

$$\log_r (n^r + rn + \epsilon) + \log_r (n-r) = \mu \quad (10)$$

$$\log_r (n^r + rn + \epsilon)(n-r) = \log_r (n^r - rn^r + rn^r - \epsilon n + \epsilon n - 1)$$

$$= \log_r n^{\mu-1} = \mu \Rightarrow n = \sqrt[\mu]{14} = r \frac{\epsilon}{\mu} \quad \log_r \frac{1}{r^{\frac{\epsilon}{\mu}}} = \log_r r^{\frac{\epsilon}{\mu}}$$

$$= \mu \log_r r = \mu$$

$$\log_r (r-n) - \log_r \frac{1}{(r-n)r} = \mu \Rightarrow \log_r (r-n)^{\mu} = \mu \quad (10)$$

$$(r-n)^{\mu} = 1 \cdot \mu \xrightarrow{\text{der}} r-n=1 \Rightarrow n = -1$$

$$\log_r (r-n) = \log_r \frac{r^{\mu}}{r^{\frac{1}{\mu}}} = 4 \log_r r = 4$$

$$\log_r (n-r) = \log_r \sqrt[4]{4} = \frac{1}{4} \quad n = 1 + \sqrt[4]{4}$$

$$\mu n^{\mu-1} = 11^{\mu} \quad (10)$$

$$\mu n^{\mu-1} = \mu \epsilon n$$

$$n^{\mu} - \epsilon n - r = 0$$

$$\Delta = 14 + 1 = 15$$

$$\frac{\epsilon \pm r \sqrt{\Delta}}{\mu} = \frac{1 \pm \sqrt{15}}{10} \quad (25)$$

$$\log_r \frac{1}{11} = \frac{\mu \log_r r}{\log_r 11} = \frac{\mu \log_r r}{\log_r \mu + \log_r r} = \frac{\frac{1}{\mu}}{\frac{1}{\mu} + 1} = \frac{1}{1 + \mu} = \frac{1}{1 + 10} = \frac{1}{11}$$

Arman

$$\log_{14}^4 = \frac{\log^4 + \log^4}{r \log^4 + \log^4} = \frac{1,4+1}{r+1,4}$$

$$\log_{\varepsilon}^4 = 1,4 \quad (1.11)$$

$$\hookrightarrow \log_{14}^4 = 1,4$$

$$\frac{14}{10} \times \frac{10}{14} = \frac{14}{14}$$

$$(a \log r) r^r + a n + b \log r^r.$$

(1.11)

$$\xrightarrow{n=1} a \log r - a + b \log r^r \Rightarrow b \log r^r = a - a \log r$$

$$b \log r^r = a(1 - \log r) \Rightarrow \frac{b}{a} = \frac{1 - \log r}{\log r}$$

$$= \frac{\log a}{\log r} = \log_{\frac{r}{a}}^a$$

$$(\sqrt{r}) \frac{b}{a} = r \frac{1}{r} \log_{\frac{r}{a}}^a$$

$$= r \log_{\frac{r}{a}}^a = a \frac{1}{r} \log_{\frac{r}{a}}^a = \sqrt{a}$$