

① $f(x) = \mu^{Ax+B}$

$y = x^r \rightarrow x=1 \rightarrow \mu^{A+B} = 1 \rightarrow A+B=0$
 $\rightarrow x=\mu \rightarrow \mu^{A+B} = 9 \rightarrow 3A+B=2$

(20)

$\mu^{Ax+B} \rightarrow \mu^{x-1}$

نقطة التقاطع
 $x=0$

$\mu^{-1} = \frac{1}{\mu}$

$A=1 \quad B=-1$

Complet

② $\mu^{(x+\mu)} = \epsilon = 10 \rightarrow \mu^x \times \mu^\mu = (\mu^x)^\mu + 10$

$\mu^x = z \rightarrow z^\mu - \mu z + 10 = 0$

$(z-10)(z-\mu) = 0 \rightarrow z=\mu \rightarrow \log_\mu^\mu = x \rightarrow \mu^x = \mu$
 $\rightarrow z=10 \rightarrow \log_\mu 10 = x \rightarrow \mu^x = 10$
 $\log_\mu 10 + \log_\mu \mu = \log_\mu 10\mu$

③ $(\log_\mu^\mu)^\mu + \log_\mu^{1\epsilon V} x \log_\mu^{1\mu\mu\mu} \rightarrow \log_\mu^{\mu(x+\mu)} = \mu + \log_\mu^\mu$
 $\hookrightarrow \log_\mu^{\mu(x+\mu)} = \log_\mu^\mu + \log_\mu^\mu = 1 + \log_\mu^\mu - \log_\mu^\mu = \mu - \log_\mu^\mu$
 $(\log_\mu^\mu)^\mu + (\mu - \log_\mu^\mu) + (\mu + \log_\mu^\mu) = (\log_\mu^\mu)^\mu + \epsilon - (\log_\mu^\mu)^\mu = \epsilon$

④ $\log_\mu^{x^\mu - \mu x + 1} + \mu \log_\mu^{(1-x)} = 0$
 $\hookrightarrow x^\mu - \mu x + 1 = (x-1)^\mu + (1-x)^\mu \rightarrow \mu \log_\mu^{(1-x)} + \mu \log_\mu^{(1-x)} = 0$
 $\omega \log_\mu^{(1-x)} = 0 \rightarrow \log_\mu^{(1-x)} = 1 \rightarrow 1-x = 1 \rightarrow x = -9$
 $\log_\mu^{(-x)} \rightarrow \log_\mu^9 = \mu$

⑤ $\log_\mu^{(x^\mu + \mu x + \epsilon)} + \log_\mu^{(x-\mu)} = \mu \rightarrow \log_\mu^{(x^\mu + \mu x + \epsilon)(x-\mu)} = \mu$
 $\log_\mu^{x^\mu - 1} = \mu \rightarrow x^\mu - 1 = 1 \rightarrow x^\mu = 19 \rightarrow x = \sqrt[\mu]{19}$
 $\log_\mu x \rightarrow \log_\mu^{\sqrt[\mu]{19}} \rightarrow \epsilon \log_\mu^\mu = \epsilon$

$$(4) \log^{(r-x)} - \log \frac{1}{(x-r)^r} = r$$

$$\hookrightarrow \log^{(rx)} - \log^{(r-x)^{-r}} = r$$

$$\log^{(r-x)} + r \log^{(r-x)} = r \log^{(r-x)}$$

$$\log^{(r-x)} = 1 \rightarrow x = -1$$

$$\log^{-x} = \log r^r = 4$$

مطلوبه

$$(5) r^{(x^r-r)} = 11^x \rightarrow x^r - r = rx \rightarrow x^r - rx - r = 0 \rightarrow x = r \pm \sqrt{r}$$

$$\log \frac{(x-r)}{4} \rightarrow \log \frac{r+\sqrt{r}-r}{4} = \log \frac{\sqrt{r}}{4} = \frac{1}{r}$$

$$\log \frac{(x-r)}{4} \rightarrow \log \frac{r-\sqrt{r}-r}{4} = \log \frac{-\sqrt{r}}{4} = x$$

$$(6) \log r^r = \frac{\omega}{\lambda} \quad \log \frac{1}{11} = \log r^r = r \log r = \frac{\log 11}{\log r}$$

$$\frac{\log r^r}{\log r^r + \log r^r} = \frac{\frac{\omega}{\lambda}}{r + \frac{\omega}{\lambda}} = \frac{\frac{\omega}{\lambda}}{\frac{r\lambda + \omega}{\lambda}} = \frac{\omega}{r\lambda + \omega} \xrightarrow{x^r} r \log r = \frac{\omega}{\lambda}$$

$$(7) \log r^r = 0, 1 \rightarrow \frac{1}{r} \log r^r = \frac{r}{\omega} \rightarrow \log r^r = \frac{r}{\omega}$$

$$\log \frac{r^4}{11} = \frac{\log r^4}{\log 11} = \frac{4 + \log r^r}{r + \log r^r} = \frac{4 + \frac{r}{\omega}}{r + \frac{r}{\omega}} = \frac{\frac{4\omega + r}{\omega}}{\frac{r\omega + r}{\omega}} = \frac{4\omega + r}{r\omega + r} < \frac{r}{\omega}$$

$$(8) (a \log r) x^r + a x + b \log r = 0 \xrightarrow{x=1} (a \log r) - a + b \log r = 0$$

$$b \log r = a - a \log r - b \log r = a(1 - \log r)$$

$$\frac{b}{a} = \frac{1 - \log r}{\log r} \rightarrow \frac{\log \omega}{\log r} = \log \omega$$

$$(\sqrt{\omega}) \frac{b}{a} = r \frac{1}{r} \times \log \omega = r \log \omega^{\frac{1}{r}} = r \log \sqrt[r]{\omega} = \sqrt{\omega} \log r = \sqrt{\omega}$$