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لماذا ابراهيم تليف ٢٢

$$x=1 \rightarrow 1 = r^{A+B}$$

$$A+B = 0$$

$$x=r \rightarrow 9 = r^{2A+B}$$

$$2A+B = 2$$

$$2A = 2 \rightarrow A = 1$$

$$B = -1$$

$$r^{-1} = \left(\frac{1}{r}\right) \quad \text{⑤}$$

$$\log_r |x^x + 10| = x + r \rightarrow r^x + 10 = r^{x+r} \Rightarrow r^{2x} - r^{x+r} + 10 = 0$$

$$(r^x)^2 - 10r^x + 10 = 0 \rightarrow r^x = t \rightarrow t^2 - 10t + 10 = 0 \rightarrow (t-2)(t-8) = 0$$

$$t=2 \Rightarrow r^x = 2 \rightarrow x = \log_r 2$$

$$t=8 \Rightarrow r^x = 8 \rightarrow x = \log_r 8$$

$$\log_r 2 + \log_r 8 = \log_r 10 \quad \text{⑤}$$

$$(\log_r 2)^2 + (\log_r 2 + \log_r 8)(\log_r 2 + 2\log_r 8) = 0 \Rightarrow \log_r 2 = 1 - \log_r 8 \quad \text{⑤}$$

$$(\log_r 2)^2 + (2 - \log_r 8)(2 + \log_r 8) = 0 \Rightarrow (\log_r 2)^2 + 4 - (\log_r 8)^2 = 0 \quad \text{⑤}$$

$$\log(1-x)^r + r \log 1^{-x} = 0$$

$$r \log(1-x) = 0$$

$$\log 1^r = 0 \quad \text{⑤}$$

$$\log(1-x) = 0$$

$$1-x = 1 \rightarrow x = 0$$

$$\log_r x^r + r \log_r x + 8 = \log_r x^{n-r} \Rightarrow \log_r x^r = r \quad \text{⑤}$$

$$x^r - 1 = 1 \rightarrow x^r = 14 \rightarrow x = \sqrt[r]{14}$$

$$\log \frac{\sqrt[r]{14}}{\sqrt[r]{r}} = \frac{\frac{1}{r} \log 14}{\frac{1}{r} \log r} = \log \frac{14}{r} \quad \text{⑤}$$

$$\log^{r-n} - \log^{(r-n)^{-r}} = r \rightarrow r \log^{r-n} = r \rightarrow \log^{r-n} = 1 \quad -9$$

$$r-n=1 \rightarrow n=-1$$

$$\log^{\frac{r}{r}} = \frac{r}{\frac{1}{r}} = \boxed{r} \quad (5)$$

$$r^{x^r-r} = r^{\varepsilon n}$$

$$x^r - \varepsilon n - r = \cdot \rightarrow (x-r)^r = r \rightarrow x-r = \sqrt[r]{r} \rightarrow x = r + \sqrt[r]{r}$$

$$x-r = -\sqrt[r]{r} \rightarrow x = r - \sqrt[r]{r} \quad (5)$$

$$\log_y^{r+\sqrt[r]{r}-r} = \log_y^{\sqrt[r]{r}} = \boxed{\frac{1}{r}} \quad (5)$$

$$\log_{1/n}^1 = \frac{\log_r^1}{\log_r^{1/n}} = \frac{r}{\log_r^1 + \log_r^r} = \frac{r}{1+r \log_r^r} = \frac{r}{1+r(\frac{1}{r})} = \frac{\frac{r}{1}}{\frac{r+1}{r}} = \boxed{\frac{r}{r+1}} \quad (5)$$

$$\log_{1/r}^4 = \frac{\log_r^4}{\log_r^{1/r}} = \frac{\log_r^4 + 1}{\log_r^r + r} = \frac{1+4+1}{1+4+r} \quad \frac{1}{r} \log_r^r = \frac{1}{1}$$

$$\log_r^r = 1/r$$

$$\frac{r \cdot 4}{r \cdot 4} = \frac{r}{r} = \boxed{\frac{1r}{1n}} \quad (5)$$

$$n = -1 \rightarrow a \log_r r - a + b \log_r r = \cdot \rightarrow \log_r r = y \rightarrow ay - a + by = \cdot \quad -1$$

$$\div a \rightarrow y - 1 + \frac{b}{a} y = \cdot \rightarrow y - \frac{b}{a} y = 1 \rightarrow 1 - \frac{b}{a} = \frac{1}{\log_r r} \quad (5)$$

$$1 - \frac{b}{a} = \log_r^1 \rightarrow 1 - \frac{b}{a} = 1 + \log_r^d \rightarrow \frac{b}{a} = + \log_r^d$$

$$r + \log_r^d = d + \frac{r}{r} = \boxed{\sqrt{d}} \quad (5)$$