

$$\log_n^m = a \quad \log_{mn}^{m^2 n} = b \rightarrow \frac{\log_n^{m^2 n}}{\log_{mn}^{m^2 n}} = \frac{\log_n^{m^2} + \log_n^n}{\log_n^m + \log_n^n} = \frac{2(\log_n^m) + 1}{(\log_n^m) + 1} = \frac{2a + 1}{a + 1} = b$$

a > [b] = ?

$$\frac{a+1}{a+1} + \frac{a}{a+1} = b \rightarrow [b] = 1$$

$$\therefore \frac{a}{a+1} < 1$$

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$$\sqrt{\frac{x}{\log \frac{x}{x}}} = y \rightarrow \log \frac{x}{x} \neq 0 \rightarrow x \neq 1 \quad \frac{x}{\log \frac{x}{x}} \gg 0 \rightarrow \frac{1}{-\phi + \phi} \rightarrow D_f = (0, 1)$$

(x^p - x - p)

$$\frac{\log x}{\sqrt{x^p - 1} + 1} = y \rightarrow x^p - 1 \gg 0 \rightarrow \frac{-1}{+p - \phi + 1} \quad x^p - x - p > 0 \rightarrow (x - p)(x + 1) > 0$$

$$D_f = (-\infty, -1) \cup (1, \infty)$$

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$$p \log_a^a + \log \frac{\sqrt{a}}{a} = p$$

$$x = a \rightarrow p \log_a^a + \log \frac{\sqrt{a}}{a} = p \rightarrow p \log_a^a + \log \frac{\sqrt{a}}{a} = p \rightarrow p \log_a^a + \frac{1}{\log a} = p \rightarrow p t + \frac{1}{p t} = p$$

$$\log_a^a = t$$

$$\frac{p t^2 + 1}{p t} = p$$

$$p t^2 + 1 = p t^2 - p t + 1 = 0$$

$$[a = 3] \leftarrow \log_a^a = \frac{1}{p} \leftarrow t = \frac{1}{p} \leftarrow (p t - 1)(p t - 1) = 0$$

$$\log p = 0.13 \quad \log 3 = 0.17 \quad \left(\log \frac{3}{p} \right) \alpha^p + \left(\log 9 \right) \alpha - \log 1 \Delta = 0 \rightarrow 0.13 \alpha^p + 0.18 \alpha - 1 = 0$$

$$\log \frac{1}{p} = \log \frac{1}{p} - \log p = 0.17 = \log \Delta \cdot 0.13$$

$$p \log^p \alpha = 0.18$$

$$[a = 1]$$

$$\alpha = \frac{-1 \pm \sqrt{1 - 4 \cdot 0.13 \cdot 0.17}}{2 \cdot 0.13} = \frac{-1 \pm \sqrt{1 - 0.0884}}{0.26} = \frac{-1 \pm \sqrt{0.9116}}{0.26}$$

$$\alpha = \frac{1}{p} = \frac{1}{3}$$

$$\log 1 \Delta = \log \Delta^p = \log \Delta + \log p = 0.17 + 0.13 = 0.3$$

$$\log \frac{1}{p} = \log \Delta - \log p = 0.17 - 0.13 = 0.04$$

$$\log \frac{1}{p} = 0.18$$

$$\log \frac{1}{\Delta} = 0.17$$

$$\log \frac{1}{p} = 0 \rightarrow \frac{\log \frac{1}{p}}{\log \frac{1}{p}} = \frac{0.18}{0.18} = 1$$

$$\log \frac{1}{p} = \log \frac{1}{p} - \log p = \frac{1}{p} = \frac{1}{3}$$

$$\log \frac{1}{p} = \log \frac{1}{p} - \log p = \log \frac{1}{p} - \log \frac{1}{p} = 0 \rightarrow \log \frac{1}{p} = 0$$

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