

Y0

← $\log_{\frac{1}{v}} = -\log_v$

$$v^x = v^{Ax+B} \Rightarrow x=1, v$$

5

← 1

$$\Rightarrow v^v = v^{vA+B} \Rightarrow v = vA+B$$

$$\Rightarrow 1 = v^{A+B} \Rightarrow (0 = A+B) \times -1$$

$$\left. \begin{array}{l} \Rightarrow vA = v \Rightarrow A = 1 \\ B = -1 \end{array} \right\}$$

$$f(x) = v^{x-1} \Rightarrow f(0) = \frac{1}{v} \Rightarrow (0, \frac{1}{v})$$

$$\log_v (v^x + 1) = x + \frac{1}{v} \rightarrow v^x + 1 = v^{x + \frac{1}{v}} \Rightarrow$$

$$v^{v^x} + 1 = v \times v^x \quad v^x = t \Rightarrow t^v - vt + 1 = 0$$

$$(t-v)(t-\omega) = 0 \Rightarrow t = v, \omega \Rightarrow v = v^v \Rightarrow \log_v v = v$$

$$\omega = v^\omega \Rightarrow \log_v \omega = \omega$$

$$\log_v v + \log_v \omega = \log_v v\omega$$

5

$$(\log_{v_1} v)^v + (v \log_{v_1} v + \log_{v_1} v) \times (v \log_{v_1} v + v \log_{v_1} v)$$

$$\log_{v_1} v = \log_{v_1} v_1 - \log_{v_1} v \Rightarrow \log_{v_1} v = 1 - m$$

← 2

5

$$\rightarrow n^r + \underbrace{(r - r m + m)}_{r-m} \times \underbrace{(r - r m + r m)}_{m+r} = m^r - m^r + r = r$$

$$\begin{aligned} (1-x)^r \log_r (n^r - r m + 1) + r \log_r (1-x) &= \omega \\ r \log_r (1-x) + r \log_r (1-x) &\rightarrow \log_r^{1-x} = 1 \rightarrow 1-x = 10 \end{aligned}$$

$$x = -9 \rightarrow \log_r^{(-(-9))} = r$$

$$\log_r (n^r + r m + r) + \log_r (n - r) = r$$

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

$$\log_r n^r - 1 = r \rightarrow n^r - 1 = 1 \rightarrow n^r = 2 \rightarrow n = r^{\frac{1}{r}}$$

$$\log_r^{r \frac{1}{r}} = \frac{r}{r} \times r \log_r r = r$$

$$\log_r^{r-x} - \log_r \frac{1}{(n-r)^r} = r \rightarrow \log_r^{-(n-r)} = \frac{1}{(n-r)^r} = \omega$$

$$\log_r^{-(n-r)^r} = r \rightarrow -(n-r)^r = 10^{10} \rightarrow n-r = -10$$

$$n = -10 = -r^r \rightarrow \log_r^{r^r} = r \times r \log_r r = r$$

$$u^{n^r - r} = u^{r \cdot n} \Rightarrow n^r - r = r \cdot n \Rightarrow n^r - r \cdot n - r = 0 \quad \leftarrow \checkmark$$

$$\Delta = 14 + 12r \Rightarrow \frac{r \pm \sqrt{4r}}{2} = r \pm \sqrt{r} \rightarrow r + \sqrt{r} \quad (3)$$

Puruzunlar ← ÜÇÜ

$$\log_4 (r + \sqrt{r} - r) = \log_4 r = \frac{1}{r} \log_4 r = \boxed{\frac{1}{r}}$$

$$\log_3^2 = \frac{3}{2}$$

$$\log_3^1 = \frac{\log_3 1}{\log_3 3} = \frac{0}{1} = 0$$

$$\log_3^2 = \frac{\log_3 2}{\log_3 3} = \frac{\log_3 2}{1} = \log_3 2$$

$$\log_3^3 = \frac{\log_3 3}{\log_3 3} = \frac{1}{1} = 1$$

$$\log_3^4 = \frac{\log_3 4}{\log_3 3} = \log_3 4$$

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$$\rightarrow a \log^r - a + b \log^r = 0$$

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

$$\frac{b}{a} = \frac{1 - \log^r}{\log^r} = \frac{\log^0 - \log^r}{\log^r} = \frac{\log^a}{\log^r} = \log_{\frac{r}{a}}$$

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

\sqrt{r}

