

نام خدا

$$1) f(x) = r^{Ax+B} \rightarrow r^{rA+B} = r^r \rightarrow rA+B=r$$

$$y = x^r \rightarrow x=1 \rightarrow y=1 \rightarrow r^{A+B} = r^0 \rightarrow A+B=0$$

$$x=3 \rightarrow y=9$$

$$x=0 \rightarrow f(x) = r^{0+B} = r^{-1} = \boxed{\frac{1}{r}}$$

$$\left. \begin{matrix} rA+B=r \\ A+B=0 \end{matrix} \right\} \begin{matrix} rA=r \rightarrow A=1 \\ B=-1 \end{matrix}$$

$$2) \log_r (r^{x+10}) = x+r \rightarrow r^{x+r} = r^{x+10} \rightarrow \Lambda \cdot r^x = r^{r \cdot x} + 10 \rightarrow \Lambda \cdot r^x - r^{r \cdot x} - 10 = 0$$

$$t = r^x \rightarrow r^{r \cdot x} = t^r$$

$$t^r - \Lambda t - 10 = 0 \rightarrow (t-3)(t-5) = 0 \rightarrow t=3 \rightarrow r^x = 3 \rightarrow x = \log_r 3$$

$$t=5 \rightarrow r^x = 5 \rightarrow x = \log_r 5$$

$$\log_r 3 + \log_r 5 = \boxed{\log_r 15}$$

$$3) (\log_{r_1} r)^r + \log_{r_1}^{fv} \times \log_{r_1}^{r \cdot r} = (\log_{r_1} r)^r + \log_{r_1}^{fv} \times (\log_{r_1}^{r_1} + \log_{r_1}^{r_1} + \log_{r_1}^r)$$

$$= (\log_{r_1} r)^r + \log_{r_1}^{fv} \times r + \log_{r_1}^{fv} \times \log_{r_1}^r = (\log_{r_1} r)^r + r + r \log_{r_1}^v + \log_{r_1}^r + \log_{r_1}^r \times \log_{r_1}^v$$

$$\log_{r_1}^r (\log_{r_1}^r + \log_{r_1}^v) + r + \log_{r_1}^v + 1 = r + \log_{r_1}^r + \log_{r_1}^v = \boxed{r}$$

$$4) \log_r (r^{n-1})^r + r \log_r (1-n) = 0 \rightarrow \log_r \frac{(1-n)^r}{r} \times (1-n)^r = \log_r 10^0$$

$$(1-n)^0 = 10^0 \rightarrow 1-n = 10 \rightarrow n = -9 \rightarrow \log_r^{-(-9)} = \boxed{r}$$

$$5) \log_r \frac{(r^{r-2n+1})(n-r)}{r} = r \rightarrow \log_r \frac{(r^{r-2n+1})(n-r)}{r} = r$$

$$r^r + 2n^r + r^r - 2n^r - r^r - 1 = 1 \rightarrow n^r = 14$$

$$\log_{\frac{r}{\sqrt{r}}} \frac{r}{\sqrt{r}} = \log_{\frac{r}{\sqrt{r}}} \frac{r}{\sqrt{r}} = \frac{r}{\sqrt{r}} \times r \log_r r = \boxed{r} \times \frac{r}{\frac{1}{\sqrt{r}}} = r$$

$$6) \log_r (r-n) - \log_r \frac{1}{(n-r)^r} = r \rightarrow -(n-r)^r = 10^r \rightarrow r-n = 10 \rightarrow n = -10 \rightarrow \log_{\frac{r}{\sqrt{r}}} \frac{1}{\sqrt{r}} = \boxed{r}$$

$$V, \log_4^{(x-2)} = \log_4^{2+\sqrt{4}-2} = \log_4^{\sqrt{4}} = \boxed{\frac{1}{2}}$$

$$W, x^2 - r = p^{fm} \rightarrow x^2 - r = fn \rightarrow x^2 - fn - r = 0 \rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{f \pm \sqrt{f^2}}{2} \rightarrow r \pm \sqrt{r}$$

فقط + قابل قبول است

$$A, \log_r^r = \frac{\Delta}{\Lambda} \rightarrow \log_{\Lambda}^{\Lambda} = \frac{\log_{\mu}^{\Lambda}}{\log_{\mu}^{\Lambda}} = \frac{r \log_{\mu}^r}{r \log_{\mu}^r + \log_{\mu}^r} = \frac{\frac{1\Delta}{\Lambda}}{\frac{r1}{\Lambda}} = \frac{1\Delta}{r1} = \boxed{\frac{\Delta}{r}}$$

$$9, \log_{1r}^r = \frac{\log_r^r}{\log_r^r} = \frac{\log_f^r + \log_{\mu}^r}{\log_f^r + \log_{\mu}^r} = \frac{0,1\Delta + 0,1\Lambda}{1 + 0,1\Lambda} = \boxed{\frac{1\mu}{1\Lambda}}$$

$$10, a \log r + b \log r = a \rightarrow \log r(a+b) = a \rightarrow \log r = \frac{a}{a+b} \rightarrow \log_{10}^r = \frac{a+b}{a} = 1 + \frac{b}{a}$$

$$\frac{b}{a} = \log_{10}^r - 1 = \log_r^0 \rightarrow \sqrt{r}^{\log_r^0} = 0^{\log_r^{\sqrt{r}}} = a^{\frac{1}{r}} = \boxed{\sqrt{a}}$$