

: (10/10/21)

$$f(x) = x^{A+B}$$

$$y = x^r \rightarrow (1, 1) \quad (r, r)$$

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

$$x^{A+B} = x^r \rightarrow rA+B=r \quad \textcircled{1} \quad -rB+B=r$$

$$\rightarrow -rB=r \rightarrow B=-1 \quad A=1$$

$$f(x) = x^{n-1} \quad n=0 \quad x^{-1} = \frac{1}{x}$$

$$\log_r (x^n + 10) = n + r$$

$$r^{n+r} = x^n + 10 \rightarrow r^{n+r} = r^n + 10$$

$$rt = t^r + 10 \rightarrow t^r - rt + 10 \rightarrow (t-r)(t-a) = 0$$

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

$$t=a \rightarrow r^a = 10 \rightarrow \log_r 10$$

$$\log_r 10 + \log_r r \rightarrow \log_r 10$$

Subject: ()

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$$(\log_{r_1} r^r) + \log_{r_1} \log_{r_1} r^r$$

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

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

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

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

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

$$\log(m^r - r_1 + 1) + r \log(1 - m) = 0$$

$$\log_{(m-1)}^0 = 0 \quad 1^0 = (1-m)^0$$

$$10 = 1 - m \rightarrow m = -9 \quad \log_{r_1}^0 \rightarrow \textcircled{P}$$

$$\log_r (a^r + r_1 r^r) + \log_r (m - r) = r$$

$$\log_r (m - r) = r \quad m^r = 10 \quad m = \sqrt[r]{10}$$

Suman

$$\log \sqrt[r]{10} \rightarrow \frac{r}{r} r^r = \log_r^r = \boxed{E}$$

(۹)

$$\frac{\log_4 17}{\log_4 17} = \frac{\log_4 17}{\log_4 17} = \frac{0.18 + 0.18}{1.18} = \frac{0.36}{1.18}$$

$$(a \log r) r^x + a x + b \log r^x = 0$$

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$$(r^x)^{\frac{b}{a}} = ?$$

-۱ = ?

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

$$\log r^a + \log r^b = a \quad \rightarrow \log r = \frac{a}{a+b}$$

$$\log r^{\frac{a+b}{a}} = 1 + \frac{b}{a} \quad \log r^0 = \log r^0 + \log r^x = 1 + \log r^x$$

$$1 + \frac{b}{a} \Rightarrow \log r^0 = \frac{b}{a} \quad (r^x)^{\frac{b}{a}} = (r^x)^{\log r^0} = (r^{\frac{1}{r}})^{\log r^0}$$

- Arman

$$(r^{\log r})^{\frac{1}{r}} = 0 \frac{1}{r} = \sqrt{0}$$