

Contoh:

1. Nilai dari ${}^2\log 16 + {}^3\log 81 - {}^4\log 64 - {}^5\log 1$ adalah :

$$\begin{aligned}\text{Jawab :} &= {}^2\log 16 + {}^3\log 81 - {}^4\log 64 - {}^5\log 1 \\ &= {}^2\log 2^4 + {}^3\log 3^4 - {}^4\log 4^3 - {}^5\log 5^0 \\ &= 4 + 4 - 3 - 0 \\ &= 5\end{aligned}$$

2. Nilai dari ${}^3\log 18 + {}^3\log 15 - {}^3\log 10 = \dots$

$$\begin{aligned}\text{Jawab :} &= {}^3\log 18 + {}^3\log 15 - {}^3\log 10 \\ &= {}^3\log \frac{18 \cdot 15}{10} \\ &= {}^3\log 27 \\ &= {}^3\log 3^3 \\ &= 3\end{aligned}$$

3. Jika $a = \log 3$ dan $b = \log 5$, tentukan nilai ${}^9\log 25$.

$$\begin{aligned}\text{Jawab :} &{}^9\log 25 = \frac{\log 25}{\log 9} = \frac{\log 5^2}{\log 3^2} = \frac{2\log 5}{2\log 3} = \frac{2b}{2a} = \frac{b}{a}\end{aligned}$$

4. Jika $\log 3 = x$ dan $\log 5 = y$. Hitung nilai dari : $\log 0,15$

$$\begin{aligned}\text{Jawab :} &\log 0,15 = \log \frac{3 \cdot 5}{100} \\ &= \log 3 + \log 5 - \log 100 \\ &= x + y - 2\end{aligned}$$