



Antiremed Kelas 10 Matematika

Pangkat, Akar, dan Logaritma - Logaritma - Set 2 - Uraian

Doc. Name: AR10MAT0112 Version : 2011-07 | halaman 1

<p>01. Hitunglah:</p> <p>a. ${}^2\log 256$</p> <p>b. ${}^3\log 243$</p> <p>c. ${}^5\log 625$</p> <p>d. $\ln e^{10}$</p> <p>e. $\log 10000$</p>	
<p>02. Carilah nilai x:</p> <p>a. ${}^2\log {}^2\log {}^2\log x = 0$</p> <p>b. ${}^2\log {}^2\log {}^3\log x = 1$</p> <p>c. ${}^3\log {}^3\log {}^3\log x = 0$</p>	
<p>03. Jika $\log 2 = x$, $\log 3 = y$, dan $\log 7 = z$, maka:</p> <p>a. $\log 18 = \dots$</p> <p>b. $\log 28 = \dots$</p> <p>c. $\log 36 = \dots$</p> <p>d. $\log 5 = \dots$</p>	



<p>04. Jika ${}^2\log 3 = a$ dan $\log 5 = b$, maka nyatakan ekspresi-ekspresi berikut terhadap a atau b:</p> <p>a. ${}^2\log 30$</p> <p>b. ${}^2\log 75$</p> <p>c. ${}^3\log 10$</p> <p>d. ${}^{125}\log 1000$</p>	
<p>05. Hitunglah!</p> <p>a. $4^{4\log 6}$</p> <p>b. $10^{(\log 3 + \log 2)}$</p> <p>c. $\sqrt{10}^{(\log 2 + \log 3 + \log 7)}$</p>	
<p>06. Jika $\log \frac{a^2}{b^4} = 2$, maka:</p> <p>a. $\log \sqrt[3]{\frac{a}{b^2}} = \dots$</p> <p>b. $\log \sqrt[5]{\frac{a^3}{b^6}} = \dots$</p> <p>c. $\log b - \log \sqrt{a} = \dots$</p>	
<p>07. Jika ${}^a\log x = 2$, ${}^a\log y = 3$, & ${}^a\log z = 5$, maka</p> <p>a. ${}^x\log(y^{a\log z}) = \dots$</p> <p>b. ${}^y\log(x^{a\log z}) = \dots$</p>	



<p>08. Hitunglah:</p> $\log(\sqrt{6+\sqrt{35}} - \sqrt{6-\sqrt{35}}) = \dots$	
<p>09. Hitunglah nilai a, b, dan c pada soal berikut:</p> <p>a. $a^2 \log b^2 = a^{10} \log b^{10}$</p> <p>b. ${}^{abc} \log c = \frac{1}{{}^c \log a + {}^c \log b + 1}$</p>	
<p>10. Hitunglah nilai x, y, dan z jika diketahui:</p> $x^2 y^3 z^4 = 243$ ${}^3 \log x : {}^3 \log y : {}^3 \log z = 1 : 2 : 3$	