

Ridurre le seguenti espressioni ad un unico logaritmo:

1. $\log_2 4 + \frac{1}{2} \log_2 9$ [$\log_2 12$]

2. $\log_5 7 - \log_5 21 + 3 \log_5 6$ [$\log_5 72$]

3. $2 \log a - 3 \log b + \frac{1}{3} \log c$ [$\log \frac{a^2 \sqrt[3]{c}}{b^3}$]

4. $\ln(a+b) - \frac{1}{2} \ln(a-b) + 3 \ln a$ [$\ln \frac{a^3(a+b)}{\sqrt{a-b}}$]

Calcolare il valore delle seguenti espressioni:

5. $3 \log_2 4 - \log_2 8$ [3]

6. $\log_2 \sqrt{8} + \log_2 \sqrt{2}$ [2]

7. $2 \log 5 + 3 \log 2 - \log 20$ [1]

8. $\log_4 \frac{16}{2} - \log_5 \sqrt{5^3}$ [0]

9. $\log_3 \frac{3\sqrt{27}}{\sqrt[3]{3^5}}$ [$\frac{5}{6}$]

10. $\log_3 \sqrt{27\sqrt{3}}$ [$\frac{7}{4}$]

Usando la calcolatrice scientifica, calcolare:

11. $\ln 5$ [1,609437912]

12. $\ln \sqrt{2}$ [0,34657359]

13. $\log 1,7$ [0,230448921]

14. $\log 0,005$ [- 2,301029996]

15. $\log_4 21$ [2,196158711]

16. $\log_3 100$ [4,191806549]

17. $\log_2 0,3$ [- 1,736965594]

18. $\log_{0,1} 2$ [- 0,301029996]