



Exercícios: Logaritmos

Calcule os seguintes logaritmos:

1. $\log_4 16 =$

2. $\log_3 \frac{1}{9} =$

3. $\log_{81} 3 =$

4. $\log_{\frac{1}{2}} 8 =$

5. $\log_{27} 81 =$

6. $\log_{125} 25 =$

7. $\log_{\frac{1}{4}} 32 =$

8. $\log_{0,25} 8 =$

9. $\log_{25} 0,008 =$

10. $\log_{0,01} 0,001 =$

11. $\log_2 \sqrt{2} =$

12. $\log_{\sqrt[3]{7}} 49 =$

13. $\log_{100} \sqrt[3]{10} =$

14. $\log_{\sqrt{8}} \sqrt{32} =$

15. $\log_{\sqrt{27}} \sqrt[3]{9} =$

16. $\log_{\frac{1}{\sqrt{3}}} \sqrt{27} =$

2- Calcule o valor de S:

17. $S = \log_{100} 0,001 + \log_{1,5} \frac{4}{9} - \log_{1,25} 0,64$

18. $S = \log_8 \sqrt{2} + \log_{\sqrt{2}} 8 - \log_{\sqrt{2}} \sqrt{8}$

19. $S = \log_{\sqrt[3]{9}} \sqrt{\frac{1}{27}} - \log_{\sqrt[3]{0,5}} \sqrt{8} + \log_{\sqrt[3]{100}} \sqrt[6]{0,1}$

20. $S = \log_4(\log_3 9) + \log_2(\log_{81} 3) + \log_{0,8}(\log_{16} 32)$

GABARITO:

1. 2
2. -2
3. 1/4
4. -3
5. 4/3
6. 2/3

7. -(5/2)
8. -(3/2)
9. -(3/2)
10. 3/2
11. 1/2
12. 6
13. 1/6
14. 5/3

15. 4/9
16. -3
17. S = -(3/2)
18. S = 19/6
19. S = 2
20. S = -(5/2)