

Diseguazioni logaritmiche

1. $\log_4 x < \frac{1}{2}$
2. $\log_2 x > 3$
3. $\log_{\frac{1}{2}} x < 4$
4. $\log_{\frac{1}{10}} x > \frac{1}{2}$
5. $\log_9 x \leq -\frac{1}{2}$
6. $\log_{\sqrt{2}} x > 4$
7. $\log_7 x \leq 5$
8. $\log x \geq 3$
9. $\log_{\sqrt[3]{5}} x < 6$
10. $\frac{1}{2} < \log_3 x < 2$
11. $-\frac{1}{2} < \log_{\frac{1}{49}} x < \frac{1}{2}$
12. $0 \leq \log_{36} x \leq \frac{3}{2}$
13. $\log(x-3) > 1$
14. $\log_3(x+2) > -3$
15. $\log_{\frac{1}{10}}(x-4) > 1$
16. $\log_{\frac{1}{2}}(3x-5) > 2$
17. $\ln x \leq 3$
18. $\ln x > -1$
19. $\ln(2-x) \geq 0$
20. $\ln 4x \geq 1$
21. $1 + \log_2(x-1) \geq 0$
22. $3 - \ln x \leq 0$
23. $\log_2 \frac{x+3}{x} > 1$
24. $\log_{\frac{1}{3}}(x^2 - 3) > 0$
25. $\log_2 \left(x^2 - \frac{3}{4} \right) < -2$
26. $\log_{\frac{1}{2}}(x^2 - x) > \log_{\frac{1}{2}} 6$
27. $\log_{\frac{1}{2}}(3x-5) < \log_{\frac{1}{4}}(2x-1)$
28. $\log_5 \frac{1+|x|}{1-|x|} > \log_5 2$
29. $\frac{1}{2} \log_{\frac{1}{2}}(x-2) > \log_{\frac{1}{2}} 4 + \log_{\frac{1}{2}}(x-2)$
30. $\log_{\frac{1}{2}} \frac{x+1}{x-1} < \log_{\frac{1}{2}} x$
31. $\ln(7-x) + \ln(12-x) > 2 \ln(x+3)$
32. $1 + 2 \ln x \geq \ln 2x$
33. $\ln(4x+1) > \ln(2x-1) + \ln(5-x)$
34. $\ln \left(x - \frac{3}{2} \right) < -\ln x$
35. $\log_2(x+1) - \log_2(x-1) < 1$
36. $\frac{\log_2(3-x)}{4 + \log_{\frac{1}{2}} x} \geq 0$
37. $\ln^2 x - 3\ln x - 4 < 0$
38. $\log_{\frac{1}{2}}^4 x - \log_{\frac{1}{2}}^3 x \geq 0$
39. $2 \log_2 x - \log_2(x+2) \leq 0$

Disuguaglianze logaritmiche

40. $\log_2 \frac{x}{4+x} - \log_2 \frac{2+x}{1-x} < -4$

41. $\log_{\frac{1}{3}}(x+1) - 2 \log_{\frac{1}{3}}(2-x) \leq 1$

42. $\log_2 \frac{x + \sqrt{x^2 + 9}}{2x} > 1$

43. $3 \log_2 x - \frac{12}{\log_2 x} < 5$

44. $\frac{\log^2 x - 5 \log_2 x + 6}{1 - \log^2 x} \geq 0$

45. $(\log_2 |x|)^2 + 2 \log_2 |x| - 3 < 0$

46. $\log_3 |x| \geq -1$

47. $\log_{\frac{1}{2}}(4x + x^2) \leq 1$

48. $\log_{\frac{1}{2}} \sqrt{x} \leq 4$

49. $\log_{\frac{1}{3}}(2-x) - \log_{\frac{1}{3}}(1-2x) > 0$

50. $\log_2(e^{2x} - e^x) > 1$

63. $\log_{\frac{1}{3}}^3 x - 4 \log_{\frac{1}{3}}^2 x - 29 \log_{\frac{1}{3}} x - 24 \leq 0$

64. $(2^{\sqrt{x}} - 2^x)(\ln^2 x - 4) \leq 0$

65. $\log_{\sqrt{2}}(2x+1) - \log_{\sqrt{2}}(3-x) < 2$

66. $5 \log_3^2 x + 24 \log_3 x - 5 \geq 0$

67. $\ln(|x|-2) < 1$

68. $\log_2 \frac{|x|-1}{2-|x+3|} \leq 2$

69. $\ln(\sqrt{|x|} - 1) < \ln 2$

70. $|\ln|x+2|-1| \geq 4$

71. $\log_2(4 - \log_{\frac{1}{2}} x) \leq \log_{\frac{1}{4}} 16$

72. $\log_{\frac{1}{3}}^3(2-|x|) - \log_{\frac{1}{3}}(2-|x|) \leq 0$

73. $\log(2x-2) > \log(x+1)$

74. $\log_{\frac{1}{2}}(2x-1) > \log_{\frac{1}{2}}(3x+2)$

75. $2 \log_2 x > \log_2 4(x-1)$

76. $\log_{1/2}(4x-1) + \log_{1/2}(1-x) > \log_{1/2}(3x-1) + \log_{1/2}(1+x)$

51. $\ln(e^{2x} - 3 \cdot e^x + 2) \leq 0$

52. $\ln^4 x - 5 \ln^2 x + 4 \geq 0$

53. $|\log_2 x - 4| > 5$

54. $\ln|x| \leq \ln|2+x|$

55. $3 - \log_2|x-1| > 0$

56. $5 - \log_2|x+1| > 0$

57. $\log_2|x| - \log_2(x+1) \leq 0$

58. $\log_{\frac{1}{2}}(2^x - 1) > -2$

59. $\log_2^2 x + \log_2 x \leq 0$

60. $2 \ln x - \ln^2 x \geq 0$

61. $2 \ln x - \ln^2 x \geq \frac{1}{4}$

62. $\log_{\frac{1}{2}}^2 x + \log_{\frac{1}{2}} x \leq 0$

77. $\log_5(x-16) + \log_5 x > \log_5 105$
78. $\log_{1/2}(x+3) + \log_{1/2}(x-5) > 2 \log_{1/2} x$
79. $\log_{1/2}(x+1) > 0$
80. $\log \sqrt{7x+5} + \log \sqrt{2x+7} < 1 + \log \frac{9}{2}$
81. $\log_{3/5}(2x-5) + \log_{3/5}(4-x) > 2 \log_{3/5}(x-2)$
82. $\log_{1/4}(x^2 + 2x + 1) < 2$
83. $\log(x^2 - 1) - \log(x^2 - 7x + 12) < \log 4$
84. $2 \log x - 1 > \log\left(x - \frac{5}{2}\right)$
85. $\log(5-x) + \log(25+5x+x^2) < 3 \log(5-x)$
86. $4 \log \frac{x}{2} + 3 \log \frac{x}{3} > 5 \log x - \log 12$
87. $\frac{\log_3(1-x)-1}{\log_3(x^2-7)-2} > 1$
88. $\frac{1-2^x}{1-\log_2 x} > 0$
89. $\log x \log(x-5) > 0$
90. $\log(x^2 - 7) < 2 \log(x + 3)$
91. $\log_2 [\log_2(x+3)] > 0$
92. $\log(x+3) + \log(x-7) - \log(1-2x) \geq 0$
93. $\log(x+2) > 1$
94. $\log x - 1 > \frac{2}{\log x}$
95. $\frac{\log(x-3)-1}{1+\log x} < 0$
96. $\log_2^2 x - 6 \log_2 x + 8 > 0$
97. $\log_{1/4}(x^2 - 7x + 12) - \log_{1/4}(9 - x^2) > 0$
98. $\log_3^2 x - 4 \log_3 x + 3 < 0$