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Ecuații logaritmice $-1-$

$\log_a x = b \iff x = a^b \quad , x > 0, a > 0, a \neq 1, b \in \mathbb{R}$		
Logaritmi – proprietăți		
$\log_a 1 = 0$	$\log_a a = 1$	$\log_a a^n = n$
$\log_a x^n = n \log_a x$	$\log_a \sqrt[n]{x} = \frac{1}{n} \log_a x$	$\log_{a^n} x = \frac{1}{n} \log_a x$
$\log_a x + \log_a y = \log_a xy$	$\log_a x - \log_a y = \log_a \frac{x}{y}$	$\log_a x = \frac{1}{\log_x a} = \frac{\lg x}{\lg a} = \frac{\ln x}{\ln a}$

	Rezolvați ecuațiile:
1.	$\log_2 x = 1$
2.	$\log_2 x + \log_2 (x+1) = 1$
3.	$\log_2 x - \log_2 (x-1) = 1$
4.	$\log_2 x + \log_4 x + \log_8 x = \frac{11}{6}$
5.	$\log_2{}^2 x + \log_2 x = 2$
6.	$\log_x 5 + \log_x 45 = 2$
7.	$\lg x = -\lg 3$
8.	$\lg x = -1$
9.	$\log_2 x = \log_2 (x^2 + x - 2)$
10.	$\log_x 4 = \log_x (x^2 + x - 2)$
11.	$\log_2 x + \log_x 2 = 2$
12.	$\log_2 x + \log_3 x = 0$
13.	$\log_5{}^2 x - 4\log_5 x + 3 = 0$
14.	$\ln x = 1$
15.	$2 \ln x + 1 = 0$
16.	$\log_2 x(x+1) = 1$
17.	$-\log_3{}^2 x + 11 \log_3 x + 12 = 0$
18.	$\frac{2 \lg x}{\lg(5x-4)} = 1$
19.	$x^{\lg x + 1} = 100$
20.	$x^{\log_2 x} = 2$

1. $x = 2 > 0$	2. $x = 1 > 0$	3. $x = 2 > 1$	4. $x = 2 > 0$	5. $x \in \left\{\frac{1}{4}, 2\right\}$
6. $x = 15 > 0, x \neq 1$	7. $x = \frac{1}{3} > 0$	8. $x = \frac{1}{10} > 0$	9. $x = \sqrt{2} > 1$	10. $x = 2 > 1$
11. $x = 2 > 0, x \neq 1$	12. $x = 1 > 0$	13. $x \in \{5,125\}$	14. $x = e > 0$	15. $x = \frac{1}{\sqrt{e}} > 0$
16. $x \in \{-2,1\}$	17. $x \in \left\{\frac{1}{3}, 3^{12}\right\}$	18. $x = 4 > \frac{4}{5}, x \neq 1$	19. $x \in \left\{10, \frac{1}{100}\right\}$	20. $x \in \left\{\frac{1}{2}, 2\right\}$