

Solving Logarithmic Equations: Big 10

0	1	2	3	4	5	6	7	8	9
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Directions: Complete each of the problems below. Each of the ten answers will be a whole number between 0 and 9 and no answers will be repeated. Mark off the answers you have used above.

A. $3 \log_2 x + 1 = 4$

B. $\log_x 3 + \log_x 12 = 2$

C. $\log_2 x + \log_2(x - 4) = 5$ (positive solution only)

D. $\log_3(x^2 + x - 3) = 2$ (positive solution only)

E. $\log_5(3x + 2) = 1$

F. $\ln(x - 3) + \ln(x + 4) = 3 \ln 2$

G. $\log_7 1 = x$

H. $\log_2(4x + 4) - \log_2(x - 2) = 3$

I. $\log(\log(x + 3)) = 0$

J. $5 \log_3 x^2 + 1 = 21$ (positive solution only)