

We are now able to apply the previous lessons' formulas to solving logarithmic and exponential equations using algebraic techniques.

I. Solving Equations Involving Logs & Exponentials

1. $2 \log_5 x = \log_5 9$

2. $\log_5 (x + 6) + \log_5 (x + 2) = 1$

3. $\ln x + \ln(x - 4) = \ln(x + 6)$

4. $2^x = 5$

5. $8 \cdot 3^x = 5$

6. $5^{x-2} = 3^{3x+2}$

7. $4^x - 2^x - 12 = 0$

8. Use a calculator to solve.
 $x + e^x = 2$