

Math 130

4.5 – Exponential and Logarithmic Equations

Exponential Equations

Ex 1.

Solve: $8^x = 21$

Ex 2.

Solve: $5^{2x-3} = 8^{x+1}$

Ex 3.

Solve: $e^{|x|} = 50$

Ex 4.

Solve: $e^{4x} \cdot e^{x-1} = 5e$

Logarithmic Equations

Ex 5.

Solve: $\log(2x + 1) + \log x = \log(x + 8)$

Ex 6.

Solve: $\log_2(2x - 5) + \log_2(x - 3) = 3$

Ex 7.

Solve: $\ln e^{\ln x} - \ln(x - 4) = \ln 5$

Q: What has many keys but can't open any doors?