Algebra 2

6-06 Solve Exponential and Logarithmic Equations (6.6)

Solving Exponential Equations

Method 1) if the _____ are equal, then _____ are equal

$5^{x-3} = 25^{x-5}$ $2^{3x+5} = 2^{1-x}$

Method 2) take _____ of both sides

$5(7)^{5x} = 60$ $3e^{4x} + 9 = 15$

Solving Logarithmic Equations

Method 1) if the _____ are equal, then _____ are equal

$\ln(4x - 12) = \ln x$ $\log_2(3x - 4) = \log_2 5$

Method 2) _____ both sides

- Make both sides exponents with the base of the log

$\log_2(4x + 8) = 5$ $\log_3(2x + 1) = 2$

334#1, 3, 5, 7, 9, 11, 13, 17, 19, 21, 22, 23, 25, 27, 29, 75, 77, 79, 83, 87 = 20