

Math 1314 – College Algebra
Section 6.6 Exponential and Logarithmic Equations

Ex: Solve

(a) $2^{x^2+4x} = \frac{1}{8}$

(b) $2^{x^3-x} = 1$

(c) $7^{x+3} = -13$

(d) $3^x = 7$

Ex: Solve

(a) $4^{x-2} = 7^{x+3}$

(b) $2e^{2x} = 8e^{-6x}$

Ex: Solve

(a) $\log_b(3x+2) - \log_b(2x-3) = 0$

(b) $\log_{\frac{1}{2}}(4x-5) = -3$

Ex: Solve

(a) $\log_7 x + \log_7 (x - 5) = \log_7 6$

(b) $\log x + \log (x + 21) = 2$

Ex: How old is a wooden statue that contains 72.1% of its original Carbon-14 content?