

Solving Exponential & Log Equations

Name _____

Solve for x. Round to the nearest thousandth.

1) $3(4)^{4x} = 4^{5x+1}$

2) $\log_2 x + \log_2(x-3) = 2$

3) $25(1-e^t) = 12$

4) $w + e^{x+1} = 20$

5) $\ln(2x-3) \leq \ln 11$

6) $\log_3(2x) - \log_3(x-3) = \log_3 5$

7) $\log_6(2x) + 7 < 10$

8) $2e^{x+6} + 4 = 4$

9) $\log(x+4) = 1 + \log 6$

$$10) 12(1-4^x) = 18$$

$$11) \log_5(4x-5)^2 = 6$$

$$12) \log 5x + \log 2 > 10$$

$$13) \frac{h}{a^{x+3}} > a^x$$

$$14) \left(\frac{1}{16}\right)^{x+5} - v = 7^2$$

$$15) \ln(x+2)^2 = 6$$

$$16) x \ln(x) - x > 0$$

$$17) 10 \log\left(\frac{x}{10^{-2}}\right) \geq 90$$

$$18) \log(x) - \log(2) = \log(x+8) - \log(x+2)$$