Honors Precalculus   Name_____

5-7 Practice - Solving with Logs   Date_____

Solve each equation. Round your answers to the nearest ten-thousandth.

1) $\log_{11} x = 0$

   {1}

2) $\log_3 v + 6 = 9$

   {27}

3) $-9 - 10\log_8 x = 11$

   {0.0156}

4) $\log_4 3p = -2$

   {0.0208}

5) $\ln(10 - 3n) = 0$

   {3}

6) $\log(7b - 1) + 3 = 7$

   {1428.7143}

7) $\log_2 x - \log_2 5 = 4$

   {80}

8) $\log_3 4 + \log_3 x = \log_3 37$

   {9.25}

9) $\ln x + \ln 8 = 3$

   {2.5107}

10) $\log_2 x - \log_2 10 = 4$

   {160}

11) $\log 6 + \log -3x = 2$

$\{-5.5556\}$

12) $\log_4 -4x - \log_4 6 = 1$

$\{-6\}$

13) $\log_4 9 + \log_4 (x - 9) = \log_4 68$

$\{16.5556\}$

14) $\ln (x + 9) + \ln 10 = 1$

$\{-8.7282\}$

15) $5^k = 60$

2.544

16) $10^x - 10 = 50$

1.7782

17) $3 \cdot 15^a - 8 = 56$

1.1301

18) $7^{5r} = 43$

0.3866

19) $14^{8r - 8} = 55$

1.1898

20) $5 \cdot 2^{n + 7} = 69$

−3.2134

21) $2 \cdot 13^{-x} = 9$

−0.5864

22) $7e^{7k - 2} - 2.1 = 33$

0.516