

## Assignment 2.4 - Solving Exp and Log Equations Date \_\_\_\_\_ Period \_\_\_\_\_

Solve each equation.

1)  $\log_7 (2n - 2) = \log_7 (-4n + 10)$

2)  $-5 \cdot 9^{n-6} = -70$

3)  $\left(\frac{1}{64}\right)^{-n} = 16$

4)  $\ln 5 + \ln (7 - 5x^2) = \ln 26$

5)  $-10 \log (-b + 6) = -30$

6)  $\ln (6 + 3p^2) = \ln (4p^2 + p)$

7)  $2^{-2x} = 8$

8)  $\log_8 (x + 1) - \log_8 (x - 1) = 1$

9)  $\log_3 (x^2 - 9) - \log_3 5 = 3$

10)  $7 \log_3 -2n = -7$

11)  $-9e^{5x} = -66$

12)  $3^{3n} = 3^{-3n-2}$

13)  $\log x - \log (x - 2) = 1$

14)  $\ln (x + 8) - \ln 7 = 2$

15)  $5^{2x+7} - 8 = 91$

16)  $36^{-2m} = 216$

17)  $\ln x - \ln (x + 5) = 1$

18)  $\log_4 2x^2 - \log_4 8 = 2$

19)  $6^{2v} = 1$

20)  $\log_9 (x + 5) + \log_9 (x + 29) = 2$