

Name: \_\_\_\_\_  
PCH: Mixed Log Practice

Date: \_\_\_\_\_  
Ms. Loughran

1. Evaluate:  $\ln 1 + \log_3 \sqrt{3} - \log(0.01) + \ln e + \log_4 \left(\frac{1}{4}\right) - \log_2 64$

2. Find the domain of  $y = \ln(x - 7) + 2$

3. Solve:  $\log_4(2x + 3) = 2 + 2\log_4 x$

4. Evaluate:  $\log_9(\log_3(\log_4 x)) = \frac{1}{2}$

5. Evaluate:  $(\log_{32} 25)(\log_5 8)$

6. Solve:  $(\ln x - 3)^2 - 2(\ln x - 3) - 8 = 0$

7. Simplify:  $20e^{4\ln\left(\frac{1}{2}\right)}$

8. Solve:  $\ln(x^2 + 4x) - \ln 5 = 0$

9. Solve:  $e^{7+4x} = 5$