

**Exponential Functions 6 – Properties of Logarithms
Homework #11**

Name _____
Per _____ Date _____

Evaluate without using a calculator.

1) $\ln e^{-2}$

2) $\log_2 4^3$

3) $\log(0.01)^3$

4) $\log_5 \left(\frac{1}{5}\right)^3$

Use the change-of-base formula to evaluate the expression. Round to three decimal places.

5) $\log_5 7$

6) $\log_3 16$

7) $\log_2 125$

8) $\log_9 \frac{5}{16}$