

WRITE YOUR NAME:

MAC 2241 Homework 3
Due in class, Monday September 17th
You can use more paper if necessary, but please STAPLE

Question 1. Find the exact value of each expression.

- $\ln(1/e)$
- $e^{-2 \ln 5}$
- $\ln(\ln e^{e^{10}})$

Question 2. Make a rough sketch of the graph of each function.

- $y = -\ln x$

- $y = \ln(-x)$

- $y = \ln|x|$

Question 3. Solve each equation for x .

- $e^{7-4x} = 6$

- $\ln(3x - 10) = 2$

- $\ln(x^2 - 1) = 3$

Question 4. Solve each inequality for x .

- $\ln x < 0$
- $e^x > 5$
- $1 < e^{3x-1} < 2$