QUIZ 5 - MTH 166 - 10 points

Name:_____Date:__

Instructions: Solve the following. Remember to show all work in order to receive full credit.

1. In the same coordinate plane graph
   $F(x) = 2^{-x}$ and $G(x) = 4^x$.

2. Evaluate the following:
   a) $\ln e^{-3}$
   b) $\log 1.72$
   c) $\log_3 7$

3. Write the expression as the logarithm of a single quantity.
   $3(\ln x - 2 \ln (x^3 - 1)) + 4 \ln 5$

4. Expand the expression as the sum, difference and/or multiple of logarithms.
   $\log \frac{5 y^3}{x^2}$

5. Solve the following equations.
   a) $2 \ln x = 14$
   b) $\log_2 x + \log_2 (x + 2) = \log_2 (x + 6)$
   c) $e^x = 8$
   d) $5^x = 7$

6. A deposit of \$ 1,000 is invested at 8.5%. If the interest is compounded continuously what is the balance in 5 years?

- REMEMBER after QUIZ # 6 there will be an exam in the TESTING CENTER
- EXAM # 3 will include concepts from Quizzes # 5 and # 6