Math 122 (Section 9)  Quiz 4  February 8, 2001

Name ______________________

You must show all of your work to receive credit for a correct answer. You are not allowed to borrow another student’s calculator during the quiz.

1. (6 points) This morning, Eric has invested $1000 in a bank account which earns 4% interest compounded continuously.

   (a) How much money will Eric have in his account 8 years from now? Round off your answer to two decimal places after the decimal point.

   (b) How many years will it take for the balance in Eric’s account to reach $1500?
(c) A competing bank promises its customers that it will triple their money in just 15 years! What interest rate is the competitor offering? You should assume that they are also compounding interest continuously.

2. (4 points) Given that $100 = 25(1.06)^t$, find the exact value of $t$ using logarithms. Also give the approximate decimal value using your calculator.