

Math 111 Quiz #5
May 4, 2010

Name: _____

Show all work and answers on a separate sheet with a box around your final answer. You should use a calculator for this quiz.

1. (3 pts.) Three exponential functions are shown to the right. Match each equation below with its corresponding graph. (You do not need to justify your answers.)

(a) $f(x) = e^x$ (b) $g(x) = 5^x$ (c) $h(x) = 3e^x$

2. (1 pt.) $\log_5 125 = ?$

3. A population of bunnies given by $P(t) = 100e^{0.5t}$ at year t .

(a) (1 pts.) What is the population at year 1? Round to the nearest bunny.

(b) (2 pts.) How long will it take for the population to double?

4. (3 pts.) Solve $9^x = 7776(1.5)^x$. (Give the exact answer and use your calc. to get your answer in decimal form.)

