

Circle One:

Name: _____

11:00-11:55 (325)

3:30-4:20 (322)

Math211-2, Fall 2007

Quiz #2: 09-17-07

No Calculators.

1. (4 Points) Where is the following function continuous?

$$f(x) = \begin{cases} x^2 & x < 0; \\ |x - 2| & 0 \leq x \leq 4; \\ \sqrt{x} & 4 < x. \end{cases}$$

2. (2 Points) A certain bacteria culture grows exponentially. In one hour, the population grows from 500 to 800. Write a formula expressing the population P as a function of the time t in hours.

3. (2 Points) Determine the following: $\lim_{n \rightarrow \infty} 12 \left(1 - \frac{1}{2n}\right)^n$.

4. (2 Points) Suppose $\log_3 A = b$ where A and b are positive numbers. Rewrite the given logarithm as a function of b .

$$\log_3 \left(\sqrt{3A}\right).$$