

## Quiz 5

Math 231 Section DD4

October 5, 2006

Name: \_\_\_\_\_

1) *Derive* the identity

$$\cos^2(A) = \frac{1}{2}(1 + \cos(2A))$$

from the fact that the complex exponential function satisfies the Law of Exponents.

2) Calculate

$$\lim_{n \rightarrow \infty} \frac{\ln(9n)}{\ln(11n)}.$$