

Math 166: Honors Calculus II

Name: _____

Quiz 2 *Feb. 3, 2000*

1. a) Define the natural logarithm function, $\log(x)$, and the natural exponential function, $\exp(x)$.

b) Define b^x for $b > 0$ and $x \in \mathbf{R}$.

c) Define $\sinh(x)$ and $\cosh(x)$.

2. Compute the following. (Justify your answers.)

a) $\int_0^2 \frac{1}{3^x} dx$

b) $\frac{d}{dx} x^{\log(x)}$

c) $\int (xe^x)^2 dx$