

Math 166: Honors Calculus II

Name: _____

Quiz 1 *Jan. 21, 1999*

1. a) State the FIRST FUNDAMENTAL THEOREM OF CALCULUS.

b) State the SECOND FUNDAMENTAL THEOREM OF CALCULUS.

c) Use a) to prove b)

2. Compute the following.

a) $\int \frac{x+1}{\sqrt{x^2+2x}} dx.$

b) $\int x \cos(x) dx.$

c) $\frac{d}{dx} \int_{x^2}^{x^3} \sin(t^2) dt.$