

Math 166: Honors Calculus II

Name: _____

Quiz 1 *Jan. 26, 1995*

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

b) State the SECOND FUNDAMENTAL THEOREM OF CALCULUS.

c) Use a) to prove b)

2. a) Integrate $\int \cos^3(x) \sin^2(x) dx$.

b) Integrate $\int x^2 \sin(x) dx$.

c) Compute $\frac{d}{dx} \int_{3x}^{x^2} \frac{1}{\sqrt{\cos(t) + \sin(t)}} dt$.