

Math 134

Quiz 3 Sample
February 8, 2011

You may use your calculator. Indicate any calculations you do with the calculator and show your algebra whenever calculations are done by hand.

Evaluate the following definite and indefinite integrals.

1.

$$\int_0^2 \frac{y^2}{(y^3 + 4)^2} dy$$

2.

$$\int \sec^2(5x) \tan(5x) dx$$

3. Suppose that a function G is defined by the following integral for $x \geq 0$.

$$G(x) = \int_0^{\cos(x)} \ln(2+t) dt.$$

- (a) Find $G'(x)$.
- (b) Find all the critical points of G on the interval $[0, 2\pi]$.