

Open Book Quiz

Intermediate Calculus & Analytic Geometry (MATH 242 A) Date: September 10, 2013

Name:

1. (3 pt) Use Part 1 of the Fundamental Theorem of Calculus to find the derivative of the function.

$$y = \int_{4-3x}^4 \frac{u^3}{1+u^2} du$$

Hint: $\int_a^b f(x)dx = -\int_b^a f(x)dx$

2. (3 pt) Evaluate the integral $\int_4^9 \sqrt{x} dx$.

3. (2 pt) Evaluate the integral $\int_1^3 \frac{8+u^2}{u^3} du$.

4. (2 pt) Evaluate the integral $\int_{-3}^3 e^{x+3} dx$.

Hint: $e^{x+3} = e^x \cdot e^3$