

MATH U242  
QUIZ #1

Name \_\_\_\_\_

For full credit show all of your work.

**Exercise 1** (6pts). Evaluate the indefinite integrals.

a)  $\int \frac{\sin(x)}{1 + (\cos(x))^2} dx$

b)  $\int y^3 \sqrt{2y^4 - 1} dy$

**Exercise 2** (3pts). Find the derivatives.

a)  $\frac{d}{dt} (\sin(t) \cos(t^2))$

b)  $[e^x(x^3 - 2x + 1)]'$