Math 182 Quiz 3 Name: _____

January 28, 2003

Show all work for credit.

Leave all answers as exact answers unless otherwise stated.

1. Evaluate the following integrals:

   (a) $\displaystyle\int_0^\pi sin^2(x)dx$

   (b) $\displaystyle\int cos^5(x)sin^2(x)dx$

2. What does the Fundamental Theorem of Calculus tell us about the integral:

   $$\int_{-1}^1 \frac{dx}{x^2}$$