Quiz 1A, Calculus 2

Dr. Graham-Squire, Spring 2013

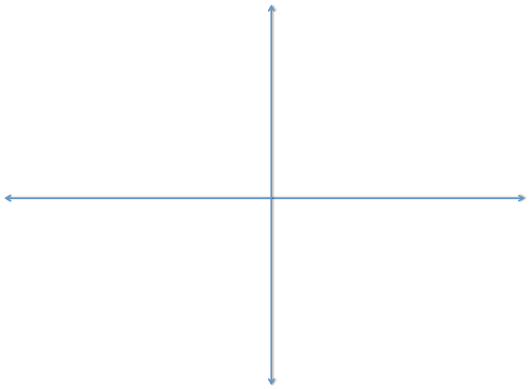
Name: _____

1. (4 points) Use the Evaluation Theorem (that is, use an antiderivative) to evaluate the definite integral

$$\int_0^{\pi/2} (\sqrt{x} - \sin x)\, dx.$$

Simplify your answer but leave it in exact form (no decimal approximation needed).

2. (3 points) Use formulas from geometry to find $\int_0^4 (2x-2)\,dx$.



3. (3 points) (a) Approximate $\int_0^4 (2x-2)\,dx$ by calculating R_4 (that is, the Riemann sum using right endpoints with 4 subintervals).
(b) Compare your answer to question (2); that is, explain how your approximation is different from the actual value (if it is). A sketch of the approximation may help.