Math 182   Quiz $\frac{1}{2}$ Name: _____

January 16, 2003

Show all work for credit.

Leave all answers as exact answers unless otherwise stated.

1. Let $f(x) = sin(2x)$. Find $f'(\pi/6)$

2. Let $f(x) = \dfrac{3x + 4}{x - 1}$. Find the slope of a line that is tangent to f at $x = 0$.

3. Evaluate the following integrals:

   (a) $\displaystyle\int \frac{2dx}{\sqrt{2x - 1}}$

   (b) $\displaystyle -\int e^x sin(sin(e^x))cos(e^x)dx$

4. Evaluate $\dfrac{d}{dx} \displaystyle\int_a^b sin(cos(3x))dx$