PRINT your name _____

Quiz for April 14, 2009 – 8:00 section

Remove everything from your desk except this page and a pencil or pen.
Circle your answer. Show your work. **Check your answer.**
The quiz is worth 5 points.

Find $\int \frac{e^x}{1+e^{2x}} dx$.

Answer: Let $u = e^x$. It follows that $du = e^x dx$ and the problem is

$$\int \frac{du}{1+u^2} = \arctan u + C = \boxed{\arctan e^x + C.}$$

We check our answer. The derivative of $\arctan e^x$ is $\frac{1}{1+(e^x)^2} e^x$. ✓