Name: _____ **Quiz 1**

Math 152 Calculus II – Crawford **08 September 2016**

Books, notes (in any form), and calculators are not allowed. *Show all your work.* Good Luck!

1. (4 pts) Differentiate the following. [Do not simplify.]

$f(x) = (\ln(\sec x))^2$

2. (5 pts) **Use logarithmic differentiation** to find the derivative of the following function in terms of x only.

$y = \dfrac{(2x+1)^5(x^2-3)^4}{\sqrt{x^2+8}}$

3. (4 pts) Evaluate the following integral.

$$\int \frac{3x}{x^2+4}\,dx$$

4. (2 pts) If $f(x) = x + \tan\left(\frac{\pi}{4}x\right)$ on $-2 < x < 2$,

find $f^{-1}(2)$.