Math 150A, Fall 2007, Section 11
Quiz 5

Name:

Show your work. No work, no credit.

1. Differentiate the function $f(x) = (3x - 4)^{-2/3}(2x - 3)^4$ and simplify, leaving no negative exponents and expressing the derivative in terms of its factors.

2. Find $\lim_{x \to 0} \dfrac{\sin^2(4x)}{7x^2}$.

3. Differentiate the function $f(x) = \cos\left(\pi \tan^2(x)\right)$. Deduce the equation of the tangent line to the curve $y = f(x)$ at the point $(\pi/4, -1)$.

Pledged
Honor code: I have neither given nor received help on this quiz.