12pm

Quiz 6

Fall 2012 **Your name:** _____

Math 0220 **Your TA's name:** _____

No calculators, no notes, no books. Show all your work (no work = no credit). Write neatly. Simplify your answers.

---

1. [5 points] Solve the equation $e^{\ln x^2 + \ln 5} = 10$.

2. [5 points] Use logarithmic differentiation to find y' if $y = \dfrac{\sqrt{x}\, e^{2x} \sin x}{(x^3 - 2)^8}$.

bonus problem [5 points extra] Evaluate the limit $\lim_{x \to 0} \dfrac{e^{\sin x} - 1}{x}$. Do not use L'Hospital's rule.