Math 180, Quiz 4: Thursday, February 14, 2013

Take fifteen minutes to complete this quiz. Please show all your work, and write your name on the front *and* back of the paper before turning it in.

1. **(4 pts)** Find $f'(x)$, where $f(x) = \dfrac{5}{1 + e^{-3x}}$.

2. **(5 pts)** Find $g'(x)$, where $g(x) = x^5 \cot(x)$ - 1.

3. **(1 pt)** On which intervals is the function $g(x) = \dfrac{1}{x + 6}$ continuous?