Lecture time: 12 pm

Quiz 5

Quiz time limit: 20 min.

Spring 2015

Your name:

Math 0220

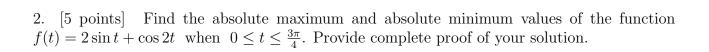
Your TA's name:

No calculators, no notes, no books are permitted. L'Hospital's rule is not allowed. SHOW ALL WORK (no work = no credit). Write neatly. Simplify your answers.

1. Find the limit, if it exists. If the limit does not exist explain why. You may use the L'Hospital's Rule.

(a) [2 points] 
$$\lim_{t\to 0} \frac{3t + e^{-3t} - 1}{t^2}$$

(b) [3 points]  $\lim_{x\to 0} (1-3x)^{\frac{2}{x}}$ 



bonus problem [5 points extra] Suppose that f(0) = -3 and  $f'(x) \le 5$  for all x. How large can f(2) possibly be?