Calculus I, Fall 2014
Quiz 5 Name: _____

You must show all your work to receive credit. Calculators are allowed.

Problem 1: (6 points) Find the following derivatives:

a) $\frac{d}{dx}(-x^2+4)^4$

b) $\frac{d}{dt}\cos(1+\frac{1}{t})$

c) $(\sec^2(2x)+4x)'$

Problem 2: (2 points) Let $F(x)=f(g(x))$. If

$$g(2)=1, \quad f'(1)=3, \quad g'(2)=-4,$$

find $F'(2)$.

Problem 3: (2 points) Find $\lim_{\theta\to 0}(\theta\cot(2\theta))$.