Instructions: *Include all relevant work to get full credit. Write your solutions using proper notations. Encircle your final answers.*

Quiz #14

1. Evaluate the following limits using the L'Hospital Rule:

    a. $\displaystyle\lim_{x\to 0} \frac{x^2}{\cos(2x) - 1}$ [2]

    b. $\displaystyle\lim_{x\to 0} \frac{e^x - (1+x)^2}{x^2 + 3x}$ [2]

    c. $\displaystyle\lim_{x\to\infty} x\tan\left(\frac{2}{x}\right)$ [3]

    d. $\displaystyle\lim_{x\to 0^+} x^{\sqrt{x}}$ [3]