

Math 1710 Section 3

March 5, 2008

Quiz #4

Name:

You **must** show your work to receive full credit.

1. Use L'Hopital's Rule to find  $\lim_{x \rightarrow 0} \frac{\sin x^2}{x}$

2. Let  $f(x) = x^2 - x - 5$ . Starting with  $x_0 = 2$ , use Newton's Method to approximate one of the  $x$ -intercepts of  $f$  by calculating  $x_2$ . Put your answer in decimal form.

3. Find  $\int (3x^2 + \cos x) dx$