

**231 Quiz 5**

February 24, 2011

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

*Work in groups but do not split up problems or tasks. You must discuss each problem as a group and agree on a final answer. Hand in one quiz per group.*

*You may use your hand-written Notebooks but no other materials and no technology at all. Please keep your discussions quiet so as not to disturb or inform other groups.*

1. Calculate the following limits. You must justify your answers with algebraic calculations and show your work clearly and in order if you want full credit.

a)  $\lim_{x \rightarrow 0^+} \frac{x + \sqrt{x}}{\sqrt{x}}$

b)  $\lim_{x \rightarrow \infty} \frac{1 - 3x^2}{(x - 1)(2x + 1)}$

c)  $\lim_{x \rightarrow 1} \frac{\frac{1}{x} - 1}{x - 1}$