

# L'Hospital's Rule for Finding Limits

## Problem 1

Use l'Hopital's Rule to determine the following limits:

a)  $\lim_{x \rightarrow 0} \frac{1 - \cos(x)}{x^2 + x}$

b)  $\lim_{x \rightarrow 0} \frac{\sqrt{1+x} - 1 - \frac{x}{2}}{x^2}$

c)  $\lim_{x \rightarrow 0^+} \ln(x)\sqrt{x}$