Answer the questions in the spaces provided and show all work for full credit. There are 3 questions and 10 points possible.

Name and Id Number: ___________________________

1. (4 points) If \( \lim_{x \to 3} f(x) = 3 \) and \( \lim_{x \to 3} g(x) = 2 \), find
   
   (a) \( \lim_{x \to 3} (f(x) + g(x)) \)
   
   (b) \( \lim_{x \to 3} \sqrt{f(x)^2 - g(x)^2} \)
   
   (c) \( \lim_{x \to 3} (3f(x)/g(x)) \)

2. (2 points) Find the following limit, if it exists. If the limit does not exist, explain why.
   \[
   \lim_{x \to t} \frac{x^2 - t^2}{x + t}
   \]

3. (4 points) Use a \( \delta - \epsilon \) argument to show
   \[
   \lim_{x \to 0} (2x - 1) = -1.
   \]