Quiz 4 – February 12, 2008

Name

1. Calculate the following limits, showing all work:

(a)
$$\lim_{x \to \infty} \frac{3x^2 - 1}{x^2 + 9}$$

(b)
$$\lim_{x \to 3} \frac{1}{x - 3}$$

2. Using the limit definition of derivative, calculate $\frac{d}{dx} \left[x^2 + 2 \right]$.