

Math 1710 Section 3  
January 30, 2008  
Quiz #1

Name:

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

1. Let  $f(x) = \sqrt{x-3}$ . Find a  $\delta > 0$  such that if  $|x-7| < \delta$  then  $|f(x) - 2| < 1$ .

2. Find  $\lim_{x \rightarrow -\infty} \frac{-3x^6 - 20x^4 - x^3 + 6}{2x^3 + 4x^2 + 12}$ .

3. Find  $\lim_{x \rightarrow 0} \frac{\tan 3x}{x}$ .