

MATH 234 FALL 2007 QUIZ #3 (8 AM)

SEPTEMBER 11TH, 2007

Show your work.

Problem 1. *Explain, in your own words, what a limit is **intuitively**.*

Problem 2. *Evaluate the following limits.*

- (1) $\lim_{x \rightarrow 1} \frac{1}{\sqrt{x}} - \frac{1}{x}$
- (2) $\lim_{x \rightarrow \infty} \frac{x(x+1)}{x^2+1}$
- (3) $\lim_{x \rightarrow \infty} \frac{2-x^3}{x^4+1}$