

Math 165 (Chris Kurth)
Spring 2008
Quiz 2

Show all work. Answers without work will not receive credit. If a limit is infinite, state which infinity.

1. (6 points) Evaluate:

$$\lim_{x \rightarrow 0} \frac{\tan 4x}{\sin 3x}.$$

2. (8 points) Evaluate (If a limit is infinite, state which infinity):

(a)

$$\lim_{x \rightarrow 2^-} \frac{x^2 + 2x - 8}{x^2 - 4}$$

(b)

$$\lim_{x \rightarrow -2^-} \frac{x^2 + 2x - 8}{x^2 - 4}$$

3. (6 points) Evaluate:

$$\lim_{x \rightarrow \infty} \frac{3x^2 + 2}{x^2 - 8x + 15}$$