

Math 190 Quiz 2: Friday Oct 9

The quiz is 20 minutes long and has two questions. No calculators or other aids are permitted. Show all of your work for full credit. When asked to compute a limit: If the limit exists find its value. If the limit does not exist but equals $\pm\infty$ say so. Otherwise explain why the limit does not exist.

Questions:

1. Compute the following limits

(a) $\lim_{x \rightarrow 4} 2x^2 - 7x - 4$

(b) $\lim_{x \rightarrow 4} \frac{2x^2 - 7x - 4}{x - 4}$

2. Compute $\lim_{x \rightarrow 3} f(x)$ where

$$f(x) = \begin{cases} -x^2 + 4, & x \leq 3 \\ \sqrt{x - 3}, & x > 3 \end{cases}.$$