

Math 131 - Quiz 2

September 1, 2021

Name _____

Score _____

Evaluate each limit analytically. Show all work to receive full credit. Supply explanations when necessary. Each problem is worth 2 points. This quiz is due September 8.

1. $\lim_{x \rightarrow 0} \frac{x^2 + 5x + 6}{x^2 - 9}$

2. $\lim_{x \rightarrow 10} \frac{x - 10}{\sqrt{x - 1} - 3}$

3. $\lim_{x \rightarrow 5} \left(\frac{1}{x - 5} - \frac{7}{x^2 - 3x - 10} \right)$

4. $\lim_{x \rightarrow 1^+} \frac{x^2 - 1}{x - 1}$

5. $\lim_{x \rightarrow 1^-} f(x)$ where $f(x) = \begin{cases} \cos \pi x, & x < 1 \\ x^2 - 1, & x > 1 \end{cases}$