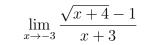# Math 131 - Homework 1

Name _____

February 3, 2021

Score _____

The following problems are from the suggested homework. Show all work to receive full credit. Supply explanations when necessary. This assignment is due on February 10.

1. (2 points) Let $f(x) = (1+x)^{1/x}$. Make a table showing the values of f at $x = \pm 0.001$, $x = \pm 0.0001$, and $x = \pm 0.00001$. Use your table to estimate $\lim\limits_{x \to 0} f(x)$.

2. (2 points) In the online version of the textbook, do problems 46–49 in section 2.2.

3. (2 points) Evaluate the limit: $\displaystyle\lim_{x \to -3} \frac{\sqrt{x+4} - 1}{x+3}$

4. (2 points) In the online version of the textbook, do problems 119 and 121 in section 2.3.

5. (2 points) In the online version of the textbook, do problem 154 in section 2.4.