Math 131 - Quiz 1

Name _____

August 26, 2020

Score _____

Show all work to receive full credit. Supply explanations when necessary. This quiz is due on August 31.

---

1. (2.5 points) Use a table of values to estimate the following limit. Your table must show function values at six or more points.

$$\lim_{x \to 5} \frac{\sqrt{x} - \sqrt{5}}{2x - 10}$$

2. (2.5 points) Use a table of values to estimate the following limit. Your table must show function values at six or more points. (Make sure your calculator is in radian mode.)

$$\lim_{x \to 1} \frac{\sin(3x - 3)}{7 \tan(2x - 2)}$$

3. (2 points) We discussed four common ways a limit can fail to exist. In which of the four ways does the following limit fail to exist? Briefly explain your reasoning.

$$\lim_{x \to -2} \sqrt{2x + 4}$$

4. (3 points) Explain why the limit laws cannot be used to evaluate the following limit. Then use a table of values to estimate the limit.

$$\lim_{x \to 2} \frac{2x^2 - 2x - 4}{x - 2}$$