Math 157 - Quiz 3

Name _____

September 10, 2014

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Suppose f is a continuous function whose value at $x = 5$ is pretty close to 1.75. What can you say about its value at $x = 4.999999$? Explain your reasoning.

2. (3 points) Use algebra to find the limit analytically.

$$\lim_{x \to 5} \frac{x^2 - 7x + 10}{x^2 - 4x - 5}$$

3. (3 points) What is the easiest way to compute $\lim_{x \to 1} (3x^2 - 7x + 8)$? Why does your method work?

4. (2 points) Use a table of values to estimate the limit.

$$\lim_{x \to 0} \frac{5^x - 1}{4x}$$