Math 131 - Quiz 10

Name _____

April 19, 2023

Score _____

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

1. (7 points) Evaluate each limit.

   (a) $\lim_{x \to 0} \dfrac{\sin 5x}{\tan 9x}$

   (b) $\lim_{x \to \infty} e^{-x}\sqrt{x}$

   (c) $\lim_{x \to 2^+} \left(\dfrac{8}{x^2 - 4} - \dfrac{x}{x - 2} \right)$

2. (3 points) Use Newton's method to approximate the solution of $\sin x = x - 1$.