

Math 241 Spring 2019 Professor MG

Quiz 3

Name: \_\_\_\_\_

Show all work and circle/box your final answer. Justify your answers. All answers must be simplified unless stated otherwise.

1. Using the limit definition of a derivative find the derivative of  $f(x) = \sqrt{x}$

2. Show that there is at least one solution to  $2x - \cos x = 0$  on the interval  $[-\pi, \pi]$ . (Note  $\cos(\pi) = \cos(-\pi) = -1$ )