

Math 241 Spring 2019 Professor MG

Quiz 8

Name: _____

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

1. Find two numbers whose sum is 32 and whose product is maximized. Justify your answers using calculus.
(i.e. Find the two numbers that maximize $P = xy$ given that $x + y = 32$)

2. Find $f(x)$ if $f''(x) = -\cos x$, $f'(0) = 1$, and $f(0) = 0$