

MATH 131, Fall 2019

Name: _____

Quiz 1

09/12/19

Section: _____

For full credit you must present a clearly organized solution, showing all supporting calculations.

1. Evaluate the limit

$$\lim_{x \rightarrow 0} \left(\frac{x}{\sin x} - 1 \right) \cos \left(\frac{1}{x} \right).$$

You must use the limit laws to justify your limit calculation.
(You can invoke the value of $\lim_{x \rightarrow 0} \sin(x)/x$ without proof.)