

MATH 131, Fall 2019

Name: _____

Quiz 9

11/14/19

Section: _____

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

1. Let $f(x) = e^{-x^2}$.

(a) Find the intervals on which f is increasing, and the intervals on which f is decreasing.

(b) Find the intervals of concavity and any inflection points of f .

(c) Find and classify all local extrema using either the first or second derivative tests.

(d) Determine any asymptotes of f .

(e) Use the information gathered in (a)-(d) to sketch a graph of f .