

APPM 1360

Spring 2022

Quiz 3

02/15/2022

Time Limit: 10 Minutes

Name: _____

Recitation Section: _____

1. Consider the region in the first quadrant bounded by the bell-shaped curve $y = e^{-x^2}$ and the line $x = 1$.
 - (a) Sketch the region and compute the intersection points of $y = e^{-x^2}$ with $x = 1$ and the y -axis.
 - (b) Set up, **but do not evaluate**, an integral for the volume of the solid obtained by rotating this region about the line $x = 3$.
 - (c) Set up, **but do not evaluate**, an integral for the volume of the solid obtained by rotating this region about the line $y = 5$.