APPM 1360 **Name:** _____
Spring 2022
Quiz 3
02/15/2022
Time Limit: 10 Minutes 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 $x = 2$.

   (c) Set up, **but do not evaluate**, an integral for the volume of the solid obtained by rotating this region about the line $y = 3$.