Name:
Student ID #:

Question 1. Find the volume of the solid whose base is the disk enclosed by the circle $x^2+y^2 = 1$ and whose cross-sections perpendicular to the y-axis are squares.

Question 2. Set up but do not evaluate the integral that represents the volume of the solid generated by rotating the region bounded by $y = 2^x$, $x + y = 1$, and $x = 1$ by

(a) the line $x = 2$,
(b) the line $y = 2$.

Your Solution.