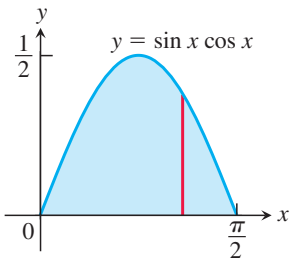
Math 241 Fall 2017 Dr. Harron
Classwork 13 Name: _____

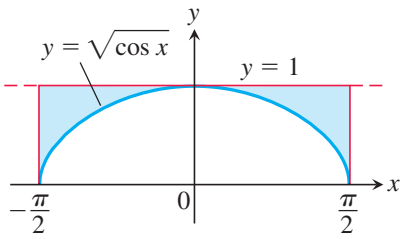
Show all work and circle/box your final answer. All answers must be simplified unless stated otherwise. If you finish early, you may leave with my approval.

1. (*0 points*) Find the volume of the solid that lies between planes perpendicular to the x-axis at $x = -1$ and $x = 1$. The cross-sections perpendicular to the x-axis between these planes are squares whose bases run from the semicircle $y = -\sqrt{1-x^2}$ to the semi circle $y = \sqrt{1-x^2}$.

2. (*0 points*) Find the volume of the solid found by revolving the area bounded by $y = \sin x \cos x$ from $x = 0$ to $x = \pi/2$ about the x-axis.



3. (*0 points*) Find the volume of the solid generated by revolving the shaded region about the x-axis.



4. (*0 points*) Use the shell method to find the volume of the solid generated by revolving the region bounded by the curves and lines about the y-axis: $y = x^2$, $y = 2 - x$, $x = 0$, for $x \geq 0$