
Q1. The base of a solid is bounded by $y = e^x$, $y = 0$, $x = 0$, and $x = 1$. If the cross sections perpendicular to the x -axis are semi-circles. Find the volume.



Q2. Find the area of the surface generated by rotating $y = \sqrt{4x - x^2}$, $1 \leq x \leq 2$ about $y = 0$



Q1. Find the volume of the solid generated by rotating the region enclosed by $y = x^2 + x$, and $y = 0$ about $x = 0$



Q2. **Set up - DO NOT Integrate** - the integration that represents the area of the surface generated by rotating

$$x = \cos y, \quad 0 \leq y \leq \frac{\pi}{2}, \text{ about } y = 5$$

