# MAT 137 (Calculus II) Prof. Swift <br> In-class worksheet: Computing Volume of a Solid of Revolution 

Let $\mathcal{R}$ be the region in the $x-y$ plane between the curves $y=x^{2}$ and $y=1$.

1. Find the volume of the solid obtained when $\mathcal{R}$ is rotated about the $x$-axis.
2. Find the volume of the solid obtained when $\mathcal{R}$ is rotated about the line $y=1$.
