## Worksheet

2/15/2019
Find the volume of the following solids.

1. The solid formed when the region bounded by $y=x^{2}$ and $y=2-x^{2}$ is revolved about the $x$-axis.

2. The solid formed when the region bounded by $y=x^{3}$, the $x$-axis, and $x=2$ is revolved about the $x$-axis.

3. The solid formed when the region bounded by $y=\sin \left(x^{2}\right)$, the $y$-axis, and $y=1$ is revolved about the $y$-axis.

4. The solid (torus) formed when the disk of radius 1 centered at $(3,0)$ is revolved about the $y$-axis. Only write the definite integral. Don't evaluate.

