

Find the volume of the described solids. Set-up the integrals and then use your calculator to find the volume.

- 1) The solid lies between planes perpendicular to the x -axis at $x = -2$ and $x = 2$. The cross sections perpendicular to the x -axis are squares whose diameters run from the parabola $y = x^2$ to the parabola $y = 8 - x^2$.

- 2) The base of a solid is bounded by $y = x^3$, $y = 0$, and $x = 2$. Find the volume if the cross-sections taken perpendicular to the y -axis are isosceles right triangles with one leg on the base of the solid.

- 3) The base of a solid is the region between the curve $y = 5\cos x$ and the x -axis from $x = 0$ to $x = \pi/2$. The cross sections perpendicular to the x -axis are circular disks