Written Description	Sliced Model	Smooth Model	Integral for the Volume
The base is a circle of radius 2 centered about the origin. The cross sections perpendicular to the x-axis are squares.			
The base is a circle of radius 2 centered about the origin. The cross sections perpendicular to the x-axis are equilateral triangles.			
The base is a square, one of whose sides is the interval $[0, 2]$ along the x-axis. The cross sections perpendicular to the x-axis are rectangles of height $f(x) = x^2$.			
The base is the region enclosed by $y = x^2$ and $y = 3$. The cross sections perpendicular to the y-axis are squares.			
The base is the parabolic region $x = y^2$ and $x = 3$. The cross sections perpendicular to the x-axis are right isosceles triangles whose hypotenuse lies in the region.			

$V = \int_{-1}^{1} (2\sqrt{2-x^2})^2 \, dx$	$V = \int_{-1}^{1} (2\sqrt{2-x^2})^2 \, dx$	$V = \int_{-1}^{1} (2\sqrt{2-x^2})^2 \, dx$	
$V = \int_{0}^{1} 2(\sqrt{2-x^2})^2 \, dx$	$V = \int_{0}^{1} 2(\sqrt{2-x^2})^2 \, dx$	$V = \int_{0}^{1} 2(\sqrt{2-x^2})^2 \, dx$	
$V = \int_{0}^{2} 2x^2 \, dx$	$V = \int_{0}^{2} 2x^2 \, dx$	$V = \int_{0}^{2} 2x^2 \, dx$	
$V = \int_{-\sqrt{3}}^{\sqrt{3}} 4x^4 \, dx$	$V = \int_{-\sqrt{3}}^{\sqrt{3}} 4x^4 \, dx$	$V = \int_{-\sqrt{3}}^{\sqrt{3}} 4x^4 \, dx$	
$V = \int_{0}^{\sqrt{3}} 4x^4 \, dx$	$V = \int_{0}^{\sqrt{3}} 4x^4 \, dx$	$V = \int_{0}^{\sqrt{3}} 4x^4 \, dx$	