A cross-section is a disk with radius $2\sqrt{3y}$, so its area is $A(y) = \pi\left(2\sqrt{3y}\right)^2$.

$$V = \int_0^9 A(y)\,dy = \int_0^9 \pi\left(2\sqrt{3y}\right)^2 dy = 4\pi \int_0^9 3y\,dy$$

$$= 4\pi\left[\tfrac{3}{2}y^2\right]_0^9 = 4\pi(\frac{243}{2}) = 486\pi$$