

Feb 19-8:47 AM

Consider the region bounded by $y=x^{2}, y=0$,
$x=2$, and $x=4 . \Phi_{0}$ Rotate this by $x=6$,


Ref. Rect. is parallel to A.O.R.



Dec 7-10:37 AM



Dec 7-10:45 AM



Dec 7-11:06 AM

The Base of a solid is a triangular region with vertices $(0,0),(1,0)$, and $(0,1)$.


Volume $=$ Area. $\Delta y \quad \sin 60^{\circ}=\frac{h}{x} \quad h=\frac{\sqrt{3}}{2} \cdot x$

$$
\begin{array}{ccc}
=\frac{\sqrt{3}}{2} x^{2} \Delta v & u=1-y \quad y=0 \rightarrow u=1 \\
V=\int_{0}^{1} \frac{\sqrt{3}}{2}(1-y)^{2} d y= & -d u=d y \quad y=1 \rightarrow u=0 \\
\frac{\sqrt{3}}{2} \int_{1}^{0} u^{2}(-d u)=\left.\frac{\sqrt{3}}{2} \cdot \frac{u^{3}}{3}\right|_{0} ^{1}=\frac{\sqrt{3}}{6}
\end{array}
$$

