## WS - VOLUMES BY SLICES - CLASS EXAMPLES

Draw a sketch of the figure. Use calculus to find the volume with the indicated base and slices. Show the integral used. All slices perpendicular to the base.

1. Base: $x^{2}+y^{2}=4$, square slices.
2. Base: $x^{2}+y^{2}=4$, semicircle slices
3. Base: a triangle formed by the line $y=x$, the $x$-axis and $x=3$.

Slices: semicircles
4. Base: enclosed area formed by $y=e^{x}$ on the interval $[0,3]$, and $y=0$. Slices are squares.
5. Base: a triangle formed by the line $y=2 x-4$, the $x$-axis and $y$-axis. Slices: semicircles

