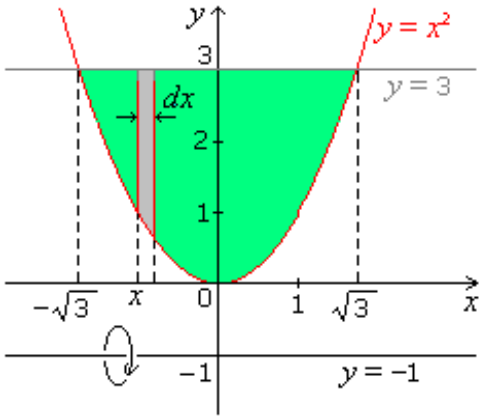
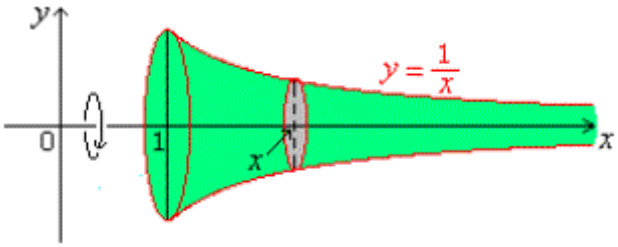
Name: _____

Volume: The Disk Method

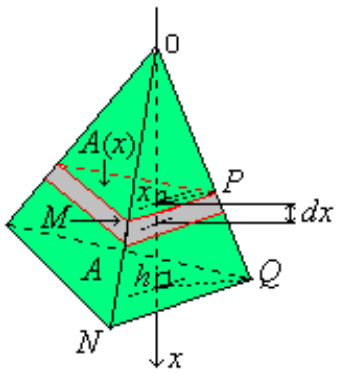
1) Use the slicing method to find the volume of the solid generated by revolving the plane region bounded by $y = x^2$ and $y = 3$ about the line $y = -1$.



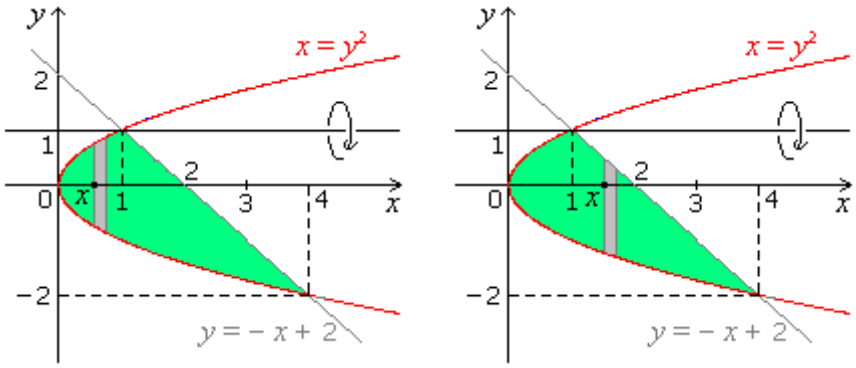
2) The plane region below $y = 1/x$, above $y = 0$, and to the right of $x = 1$ is revolved about the x-axis. Calculate the volume of the generated solid.



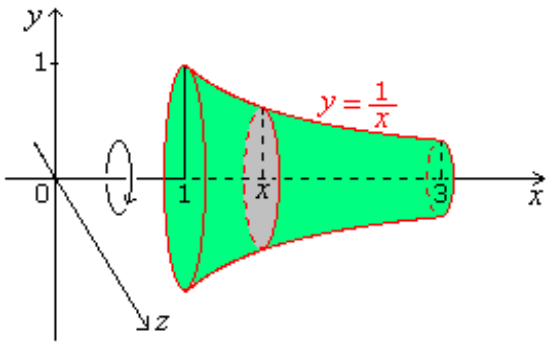
3) A pyramid has a triangular base of area A and has a height of h measured perpendicular to the plane of the base. Show that its volume is $V = (1/3)Ah$.



4) The plane region bounded by $x = y^2$ and $y = -x + 2$ is revolved about the line $y = 1$. Compute the volume of the generated solid.



5) Calculate the volume of the solid generated by revolving the plane region bounded by $y = 1/x$, $x = 1$, and $x = 3$ about the x-axis.



6) Compute the volume of the solid generated by revolving the plane region bounded by $y = x^2$, $y = 9$, and $x = 0$ about the y-axis.