
Name: _____

1. The region between the graphs of $y = x - x^2$ and $y = 0$ is rotated around the y -axis. Use the shell method to find the volume of the resulting solid.

Name: _____

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1. Consider the region bounded above by $y = \frac{1}{1+x^2}$, below by the x -axis, and for $0 \leq x \leq 2$. This region is rotated around the y -axis. Use the shell method to find the volume of the resulting solid.

Name: _____

1. Consider the region bounded above by $y = \cos(x^2)$, below by the x -axis, and for $0 \leq x \leq \sqrt{\pi/2}$. This region is rotated around the y -axis. Use the shell method to find the volume of the resulting solid.

Name: _____

1. Consider the region bounded $y = \sqrt{x}$, $y = 0$ and $x = 4$. This region is rotated around the y -axis. Use the shell method to find the volume of the resulting solid.