

Find the following Volumes via the Cylindrical Shells Formula:

1)  $y = x^3$  ,  $y = x$ ,  $x \geq 0$ , revolve around y-axis

2)  $y = -x^2 + 7$ ,  $y = x + 1$ ,  $x \geq 0$ , revolve around y-axis

3)  $y = x^2 + 2$ ,  $y = x$ ,  $x = 0$ ,  $x = 4$ , revolve around y-axis

4)  $y = x^3 + 5$   $[0,1]$ , revolve around y-axis