For the week of October 13-17

1) Determine the volume of the region bound by the $y = \sqrt{x}$, $x = 1$, and $y = 0$ when it is rotated around the line

   (a) $x = 0$

   (b) $y = 0$

   (c) $x = 1$

   (d) $y = 1$

2) Determine the volume of the solid of revolution when the region bound by the specified curves is rotated around the x axis.

   (a) $y = x^2$ and $y = \sqrt{x}$