1. Let R be the region bounded by $y = -x^3 + 9x$ and the x-axis with $x \geq 0$. Find the volume when R is rotated about
   a. the y-axis
   b. the x-axis
   c. the line $x = -3$
   d. the line $y = -3$

2. Let R be the region bounded by $y = e^{(x^2)} - 1$, the x-axis, and the line $x = 3$.
   a. Find the volume when R is rotated about the y-axis
   b. Approximate the volume accurate within 0.001 when R is rotated about the x-axis