# Math 241: HW 16

Due on Wednesday, November 13

*Fall '13*

**John** "*Curlee*" **Robertson**

# Problem 1

First graph $f(x) = \sqrt{x}$ for $x \in [0, 1]$ and sketch the solid obtained revolving $f(x)$ about the $x - axis$. Now find the volume of this solid using the "washer" or "disk" or "hockey puck" method (they are all the same). Now give a sketch for revolving $f(x)$ about the line $y = -3$, then as before, compute the volume of THIS solid.

# Problem 2

Consider the region enclosed by the two functions $f(x) = \sqrt{x}$ and $g(x) = x$. Find the volume of this region rotated about the $x$-axis. Now find the volume obtained by revolving this region about the line $y = 5$, be careful, the inside and outside radius will switch!