# Math 2260 HW #3

Due 10:10 AM Friday, January 27

**Reading:** Hass §6.3–6.4

**Problems:** Do the assignment "HW3" on WebWork. In addition, write up solutions to the following problems and hand in your solutions in class on Friday.

1. Find the volume of the solid generated by revolving the following region around the line $x = -1$. The region is in the first quadrant and bounded above by the parabola $y = x^2$, below by the $x$-axis, and on the right by the line $x = 1$.

2. Find the volume of the solid generated by revolving the region bounded by the curves $y = \sqrt{x}$ and $y = x - 2$ and the line $x = 0$ around the $y$-axis.

3. Find the volume of the solid generated by revolving the region enclosed by the graph of $y = e^{-x^2}$ and the lines $y = 0$, $x = 0$, and $x = 2$ around the $y$-axis.