NAME: MATH 152 Section: January 30, 2014

QUIZ 2

- Show all your work and indicate your final answer clearly. You will be graded not merely on the final answer, but also on the work leading up to it.

1. (3 points) Find the area of the region enclosed by the curves $y = x$ and $y^2 - 3x = 4$.

2. (3 points) Find the volume of the solid whose base is the region enclosed by the curves $y = \sqrt{1 - x^2}$ and $y = 0$ and whose cross sections perpendicular to the x-axis are squares.

3. (4 points) Find the volume of the solid obtained by rotating the region enclosed by $y = \sqrt{25 - x^2}$, $x = 2$, $x = 4$, and $y = 0$ about the x-axis.