

Math 152 Quiz #5
February 11, 2009

Name: _____

Show all work and simplify your answers as much as possible.

1. (3 pts.) Let R = the region bounded by $y = 3\sqrt{x}$, the x -axis, and $x = 1$.

Find the volume of the solid obtained by revolving R about the y -axis using cylindrical shells.

2. (4 pts.) Find the average value of $f(x) = 4x \sin(x)$ from $[0, 2\pi]$.

3. (3 pts.) $\int t^2 \cdot e^{t+5} dt$