

**Math 152 Quiz #4**  
**February 2, 2010**

Name: \_\_\_\_\_

Show all work on a separate sheet. Put a box around your final answer. No calculators are permitted.

1. (6 pts.) Let  $R$  = Region bounded by  $y = \sqrt{x}$ , the  $x$ -axis, and  $x = 4$ .

Find the volume of the solid obtained from rotating  $R$  about the line  $x = 6$ .

2. (4 pts.) Find the volume of the following solid  $S$ .

The base of  $S$  is the region bounded by  $y = \frac{3}{x}$ , and the  $x$ -axis for  $1 \leq x \leq 3$ .

Cross-sections perpendicular to the  $x$ -axis are **squares**.