

Name: _____ Section: _____

Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

1. (6 points) Use the method of cylindrical shells to compute the volume V of the solid obtained by rotating the region bounded by $y = \ln(x)$, $y = 0$ and $x = e$, about the y -axis. Note: You must use cylindrical shells to get credit for this problem.

2. (4 points) Consider the curve $C: y = 2\sqrt{x}$ ($0 \leq x \leq 3$). Set up an integral for the area A of the surface obtained by rotating C about the x -axis. Do not evaluate the integral.