Calculus II. Quiz 2. Name _____ Time_____

Show all work on this page for full and/or partial credit. Put a box around your final answers in each part.

1. Set up an integral for: the region bounded by: $y = 2$, $y = 3$, $x = 3y$, $x = y^2$; rotated around the $y-$axis. (Just set up, don't actually integrate!)

2. Find the volume of: the region bounded by: $y = 0$, $y = 1$, $y = x$, $y = \sqrt{\ln(x)}$; rotated around the $x-$axis. (Hint: solve that last equation for $x$.) Don't round: your answer should be expressed in terms of $\pi$ and $e$.