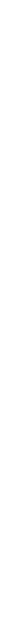Q1. **<u>Set up</u>** an integral for the area of the region enclosed by $x = y^2 - y$, and $x = 1 - y^2$.

Q2. **<u>Set up</u>** an integral for the volume generated by rotating the region enclosed by $y = -\sqrt{x}$, $y = -x$ about the *y-axis*

King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 151   Math 102 (8)   Quiz#2 (Area Between Curves + Ch6)
Family Name: S.r#

Q1. <u>Set up</u> an integral for the volume of the described solid.

The base is bounded by $y = e^x$, $y = 1$, and $x = 1$. Cross sections perpendicular to the $y-\text{axis}$ are squares.
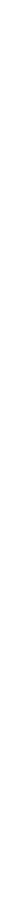
Q2. <u>Set up</u> an integral for the arc length of $y = -\sqrt[3]{x}$, $1 \le y \le 2$.