

Name: _____

This quiz covers: and 6.1, 6.2 and 6.3.

Directions: Complete all question and **show all applicable work.** Partial credit will be given. All questions are equally weighted.

1.) Find the **area** enclosed between $f(x) = x^2$ and $g(x) = x$.

2.) Using the disk method, find the **volume** formed by rotating the area enclosed by the x-axis, $x = 1$, $x = 2$ and $y = \sqrt{x}$ about the x-axis.

Name: _____

3.) Using the cylindrical shell method, Find the **volume** formed by rotating the area enclosed by the x-axis, $x = 1$, $x = 2$ and $y = \sqrt{x} - 1$ about the y-axis.