

**Assignment #7 Volumes of Revolution****Due June 8/20**

Find the volume of the solid obtained by rotating the region bounded by the given curves about the specified line. Sketch the region, the solid, and a typical disk or washer.

(Disk Method)

- a) Under  $y = x^2$  from  $x = 0$  to  $x = 1$  about the x-axis
- b) Under  $y = e^x$  from  $x = 0$  to  $x = 1$  about the x-axis

(Washer Method)

- c)  $y = x^2$  and  $y = \sqrt{x}$  about the x-axis
- d)  $y^2 = x$  and  $x = 2y$  about the y-axis
- e)  $y = x$  and  $y = \sqrt{x}$  about the line  $y = 1$