

Name: \_\_\_\_\_

This quiz covers: The second part of 6.2

**Directions:** Complete all questions and **show all applicable work.** Partial credit will be given.

1.) Given the functions:

$$y = x^3 \quad \text{and} \quad x = 1$$

Find the volume formed by rotating the enclosed region ( $x \geq 0, y \geq 0$ ) around the  $x$ -axis using the disk/washer method. Be sure to draw a diagram.

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2.) Given the functions:

$$y = x^3 \quad \text{and} \quad x = 1$$

Find the volume formed by rotating the enclosed region ( $x \geq 0, y \geq 0$ ) around the  $y$ -axis using the disk/washer method. Be sure to draw a diagram. Note that this answer should *not* be the same as the prior question.