

**Quiz 7 — 11/03/16**

Answer all questions in a clear and concise manner. Answers that are without explanations or are poorly presented may not receive full credit.

**1.** Use the shell method to find the volume of the solid obtained by rotating the region in the first quadrant enclosed by the graph of  $y = \sqrt{x}$  and  $x = 4$  about y-axis.

**2.** Find an integral expression for the arc length of the curve:

$$f(x) = \ln(1 - x) \text{ for } -10 \leq x \leq -5.$$