Name: Std ID: Section:

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QUIZ-3 18-11-2019

Draw the curve with point of intersections and show all necessary steps

a) Find the arc length of $x = \frac{1}{8}y^4 + \frac{1}{4}y^{-2}$, $1 \leq y \leq 4$

b) Find the area enclosed by the lines $y = x - 1 \; and \; y^2 = 2x + 6$

Draw the curve with point of intersections and show all necessary steps

a) Find the volume of the solid that results when the region enclosed by given curves $x = \sqrt{y}$, $x = {}^{y}/_{4}$ is revolved about the y-axis.

b) Find the area enclosed by the curve $y = x + 2 \; and \; x^2 = y$

Draw the curve with point of intersections and show all necessary steps

a) Find the length of the curve $x = (1 + t)^2$, $y = (1 + t)^3$, $0 \leq t \leq 1$

b) The region bounded by the curve $y = x^2 + 1 \; and \; line \; y = 3 - x$ is revolved about the x-axis to generate the solid , Find the volume of solid