Quiz #6, 10/7Math 157 (Calculus II), Fall 2025

Problem 1 is worth 5 points, and Problem 2 is worth 5 points, for a total of 10 points. Remember to $show\ your\ work$ on all problems!

1. Compute the arc length of the curve $y = \frac{2}{3}x^{3/2}$ from x = 0 to x = 1.

2. Compute the surface area of the surface obtained by rotating the curve $y = \frac{1}{3}x^3$ from x = 0 to x = 1 about the x-axis.