

Quiz #1, 1/21  
Math 157 (Calculus II), Spring 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 area between the curves  $y = x$  and  $y = x^3$  from  $x = -1$  to  $x = 1$ . (**Hint:** sketch a picture of the curves.)

2. Compute the volume of the solid obtained by rotating the region under the curve  $y = \sqrt{x}$  from  $x = 2$  to  $x = 4$  about the  $x$ -axis.