$\mathbf{MATH} \ \mathbf{251} \ - \ \mathbf{QUIZ} \ \mathbf{6}$

Question 1: (5 points)

Calculate the following integral, where D is the triangle with vertices (2,0),(0,2),(2,4)

$$\int \int_{D} 2xy dx dy$$

Question 2: (5 points)

Calculate the following impossible integral by reserving the order of integration:

$$\int_0^9 \int_{\sqrt{x}}^3 \left(\frac{1}{y^3 + 1}\right) \, dy dx$$

Date: Friday, October 22, 2021.