Math 233 - Quiz 10

November 16, 2023

Name _______

Show all work to receive full credit. Supply explanations when necessary.

1. (5 points) Sketch the region of integration, reverse the order of integration, and evaluate.

 $\int_0^4 \int_{\sqrt{x}}^2 \frac{3}{2+y^3} \, dy \, dx$

2. (5 points) Evaluate the double integral

$$\iint_T \frac{y}{x^2 + y^2} \, dA,$$

where T is the trapezoid bounded by the graphs of y = x, y = 2x, x = 1, and x = 2.