

Math 233 - Quiz 11

April 27, 2023

Name _____

Score _____

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

1. (8 points) Sketch the region of integration, reverse the order of integration, and evaluate.

$$\int_0^4 \int_{\sqrt{y}}^2 \frac{\sin(x^2)}{x} dx dy$$

2. (2 points) Briefly explain why the reversed order of integration would require a sum of two separate iterated integrals. Write those integrals, but do not evaluate.

$$\int_0^1 \int_{-y}^y (x^2 + y^2) dx dy$$