

Quiz 10 Math 2202

Guidelines

- This quiz is for you to test yourself on what we've been studying recently.
 - You may and should use it when doing the online quiz later today (or tomorrow).
 - You have 10 minutes. As a section, we will go over the quiz (or part of it). Solutions will be posted online as well.
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1. Consider the region D in the first quadrant which is above $y = \frac{1}{2}$, to the left of $x = \frac{\pi}{2}$, and bounded by $y = \sin x$.

(a) Sketch the region D .

(b) Let $f(x, y) = y \cos x$. Write an iterated integral equal to $\int \int_D f(x, y) dA$ integrating with respect to x first. Indicate how you are slicing in the region D .

(c) Let $f(x, y) = y \cos x$. Write an iterated integral equal to $\int \int_D f(x, y) dA$ integrating with respect to y first. Indicate how you are slicing in the region D .

Please turn over.

(d) Let $f(x, y) = y \cos x$. Compute $\int \int_D f(x, y) dA$ using whichever iterated integral seems easier.

(e) (*Think about it...*) Write an iterated integral which represents the area of D .