MATH 203 Calculus III
Homework 16

Basic Information
This assignment is due on Gradescope by **1:30 PM on Tuesday, April 8**.

Make sure you understand MHC honor code and have carefully read and understood the additional information on the class syllabus. I am happy to discuss any questions or concerns you have!

Since this is a 200-level mathematics course, quite a few homework questions will ask you to explain your reasoning or process for solving a problem. Whenever possible, write your explanations in complete sentences and write your answers as if you were explaining to a peer in the class.

The homework problems will be graded anonymously so please do not put your name or other identifying information on the pages.

Turn In Problems
- 13.1: 8b, 10b, 12, 18 You may use Desmos to help with the graphing. For the problems where there looks like there is no function to integrate, the function is $f(x, y) = 1$. You might remember we talked about this as a nice way to compute *area* of a region.
- 13.2: 8, 14, 20
- #8. If f is a constant function, $f(x, y) = k$ for some constant k, and $R = [a, b] \times [c, d]$, show that $\iint_R f(x, y)\, dA = k(b - a)(d - c)$.

Additional Problems (to do on your own, not to turn in)
- 13.1: 7b, 9b, 13, 17
- 13.2: 7, 13, 19