**Calc 2 Practice Exam Supplement**

Here are a few supplementary questions involving mass, moments, and center of gravity. Any of these questions could appear on the exam 2 (or not).

1. Define the mass , the moments , , and the center of gravity of a lamina D with density function
2. True/False
   1. If D is a lamina of uniform density in form of a rectangle from to , then the center of gravity
   2. If D is a lamina bounded by the x-axis, the y-axis, and the line from (0, 2) to (1, 0) with density function then the center of gravity is (1, 2)
3. Picture problem: identify the lamina with the larger second moment about the y-axis:
4. Find the mass and center of gravity of the lamina that occupies the region D and has the given density function:
   1. and
   2. D is the triangular region with vertices (0,0), (1,1), (4,0) and
   3. D is bounded by the parabola and the line , and
   4. D is enclosed by the cardioid and
   5. D is a thin lamina bounded by and y = 0 with density function