The 212 Final exam review sheet of fun!

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Hello, fellow citizens, it's SOOOOOOOOOOOOPER COW! I stand for truth, justice, and the american way! I feel like telling you all some secrets. Below I've x-rayed Corey's brain to figure out some information about the final for you. Second, you should know that my cryptonite is Mad Cow Disease. If infected, I would turn into the Bizarro version of supercow, and none of us want that! This will also be your last handout for this class, and so, from me, Corey, and the rest of MOOtropolis, ROCK ON!

1. Section 7.1: Area of a region between two curves. This section is nothing but a glorified section 4.2 and 4.4, in the sense that the only thing you do is compute an area. The methodology is important, though. Really, what matters when you find the area between two curves is *what is the area of a representative rectangle*? Once you know this, and your bounds of integration, you're set, whether you're finding the area between two functions of x, y, or something more exotic. These methods will be useful in the next section.

2. Section 7.2: The disk method. In this section we compute the volumes of solids of revolution: these are solids that have been produced by revolving a region in the plane around some axis. The disk (and/or "washer") method is nothing but the methods of the previous section applied to a new situation. To find volume (using this method)

we simply find the volume of a representative "disk" (or washer) and the boundary of the region, and integrate. Just like last section, except the representative object is a disk (or washer) rather than a rectangle.

3. General Information and Suggestions. The final exam will be Wednesday December 6th from 12-2 in our classroom. It will be cumulative, and you can expect that the distribution of material is consistent to how much time we spent on such material. So, since we spent most of the course on antiderivatives (for example) most of the final will be about antiderivatives. Since we spent about 5% of the course on the area problem, about 5% of the final will be about the area problem. And so on.

   I strongly suggest that you study for the test. This includes reviewing all old quizzes, tests, and homework. They are good indicators as to what I find interesting and worth asking you, although anything we covered in class if fair game. Don't wait until the last minute, either! Typically I see people frantically trying to understand difficult integration methods at the last minute and this rarely has good results. Instead, chart out what problems you need work on between now and the final exam and go through your list one by one. And of course, see Corey if you need help. Oh, and don't forget to

ROCK ON!!!