Math 125 End of Week 1 Newsletter

Every Friday, I will email the class or post a newsletter. These newsletters and emails will contain a summary of the calendar, information about homework, links to review material and studying advice. The studying advice will include old exam problems to look at each week.

UPCOMING SCHEDULE:

Friday: Section 5.1/5.2 (Riemann sums and Definite Integrals)
Monday: Section 5.2/5.3 (Fundamental Theorem of Calculus)
Tuesday: Homework discussion and test prep (bring lots of homework questions!)
Wednesday: Section 5.3/5.4 (Net Change and Total Change)
Thursday: Fundamental Theorem of Calculus Worksheet:
https://www.math.washington.edu/~m125/Worksheets/Fundamental.pdf
Next Friday: Section 5.4/5.5 (Substitution)

HOMEWORK: Closing Wednesday: HW_1A, HW_1B, HW_1C (4.9, 5.1, 5.2)

NEW POSTINGS: My new postings are here: https://sites.math.washington.edu/~aloveles/Math125Fall2019
Here are some direct links:
1. Full Chapter 5 Review: https://sites.math.washington.edu/~aloveles/Math125Fall2019/Chapter5.pdf
2. 5.1/5.2: Overhead Riemann Sum Summary (know this process well):
sites.math.washington.edu/~aloveles/Math125Fall2019/5-1RiemannApproximationStepsOverhead.pdf
3. 5.1/5.2: A full example of Riemann sums with visuals (also contains an outline for how to do the last problem in 5.2):
https://sites.math.washington.edu/~aloveles/Math125Fall2019/RiemannSums.pdf
4. Derivative and Antiderivative Table:
https://sites.math.washington.edu/~aloveles/Math125Fall2019/CalculusFactSheet.pdf

OLD EXAMS: ***It is vital that you spend some time at the end of each week reviewing the previous homework and practicing your homework stills on old exam problems***.
The departmental exam archive is here: https://www.math.washington.edu/~m125/Quizzes/Q4.php
My personal exam archive is here:
https://sites.math.washington.edu/~aloveles/Math125Fall2019/LovelessExamArchive.html
For practice using material from 4.9, 5.1, and 5.2 see:
Problem 4 from: https://sites.math.washington.edu/~aloveles/Math125Spring2017/sp13m125e1.pdf
Problem 3 from: https://sites.math.washington.edu/~aloveles/Math125Spring2017/w17m125e1.pdf
Problem 2 from: https://www.math.washington.edu/~m125/Quizzes/week4/mid1f.pdf
Problem 4 from: https://www.math.washington.edu/~m125/Quizzes/week4/mid1e.pdf
Problem 4 from: https://www.math.washington.edu/~m125/Quizzes/week4/mid1m.pdf
(and you can find many more practice problems in the other exams in the archives!).

ADVICE AND GETTING HELP:
How to get high grades in this course
If you want to get a high grade in this course, then start by reading my recipe for success which is here:
https://sites.math.washington.edu/~aloveles/Math125Fall2019/Recipe%20for%20Success.pdf
The key is to treat every homework question like an exam problem!
How to get help in this course:
If you get stuck on homework or in studying for exams and you need help, then first start by reading this:
https://sites.math.washington.edu/~aloveles/Math125Fall2019/124-5-6%20Help.pdf

Let me know if any of this helps. See the next page for some advice, extra comments, supplemental material and homework hints.

SPECIAL NOTES AND ADVICE:

HOMEWORK HINTS:
In most assignments this quarter, there will be a few applied or supplemental problems for you to practice, review, and apply what you know. It is smart to read these applied problems as soon as you can and make sure you ask if you have set up questions. A few particular notes:

The last problem in HW_1A: Watch out for the units! During acceleration a(t) = "the constant they give you", so you can do antiderivatives to get v(t) (a line with positive slope) and d(t). (Note that v(0) = 0, and d(0) = 0). Figure out when v(t) reaches the cruising speed (that time and corresponding distance are essential to answering the question). Once you have these numbers, you can answer all the questions, but you have to think about what it is asking and reason out your solutions. I find it helpful to draw a picture of the velocity function.

A few problems in HW_1B have to do with the notation of Riemann sums. I will do an example somewhat like this on Friday in lecture, but make sure to also ask in quiz section. It is most important that you can actually compute a Riemann sum for a specific value of "n", but it is nice to be able to read the notation as well. One of the problems in HW_1B have to do with actually adding the sum (it is the cubic we did in class). I post a fairly complete outline of the solution in my Riemann sum illustration review sheet, so check it out.

Supplemental Reviews: See the right of the course website for supplemental reviews on the unit circle, precalculus, exponent rules and other things you may find useful. Check it out.

Hope some of this helps. Let me know if you find something that is particularly useful or if you have input on other review materials that you might find helpful (I will add it to my list of projects for the future).

- Dr. Andy Loveless