Math 112 Week 2 Newsletter

Most weeks I will write a newsletter. These newsletters 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 ASSIGNMENTS

- *Closing Mon before class:*	9.5 Lecture Self-Check	**on Canvas**
- *Closing Wed before class*:	9.7 Lecture Self-Check	**on Canvas**
- *Closing Thu at 11pm*:	Intro to Webassign HW	**on Webassign**
	9.3 (part 1), 9.3 (part 2), 9.4 HW	**on Webassign**

UPCOMING SCHEDULE:

Mon:	9.5/9.6 Class Session (derivative rules – product, quotient, chain)
Tue:	Lab
Wed:	9.7 Class Session (combining derivative rules)
Thu:	Lab
***next* Fri:**	**Quiz 1 on 9.3 & 9.4**

Quiz 1 Notes/Rules:

- Covers 9.3 and 9.4, the most important thing is to **know the homework**!
- Quizzes are open book/open notes.
- The quiz is on Canvas during classtime, 1:30pm – 2:20pm
- The Quiz will lock 45 minutes after you open it OR at the end of your class time, whichever comes first. If you want the full 45 minutes, you must start at least 45 minutes before the end of your lecture period (meaning start sometime in the first 5 minutes of class).
- One of your instructors will be in the classroom (KANE 220) during class time if you want the opportunity to ask clarifying questions during the quiz, but you are not required to be in the classroom.
- If you want a paper copy of the quiz you must email us at least 3 days before the quiz.

EXTRA POSTINGS: Dr. Loveless keeps a "materials page" which has supplemental resources for Math 111. If you find yourself in trouble or in need of some summary resources or extra practice, then check it out here:

Dr. Loveless Math 112 materials page

Some particular review sheets worth noting are

1. 9.3 Review with examples
2. 9.4 Review with examples
3. Additional derivative practice problems using only 9.4 methods with solutions

Also here are a couple supplement skills reviews:

- Functional notation review (if you are having trouble with things like f(x+h) – f(x))
- Exponent rules review (if you are having trouble rewriting a function so you can use derivative shortcuts)
- Math 111 Refresher (if you have forgotten your Math 111 terms)

HOMEWORK HINTS: Here are hints on the most common questions from office hours:

- *Make sure to give EXACT answers unless otherwise specified. If the answer is 1/3, actually type in 1/3 (do not type in 0.333)*
- If you are stuck, please read the 9.3 review sheet (there are several examples in my review sheet).
- *On 9.3 problem 9(b)*: This is your first chance to use the main concept from lectures. To find g'(z) you first need to find and simplify (g(z+h)-g(z))/h, then let h go to 0. That gives you g'(z).
- *On 9.3 problem 9(d)*: Use part (c) to replace g(1) and g'(1) in the given approximation, then solve for g(1.0003).
- *On 9.3 problem 15*: This is all about translation and being able to approximate from a graph. For example, f'(25) = "the slope of the tangent line at 25" (draw and approximate the slope). And (f(1+h)-f(1))/h = "the slope of the secant line from 1 to 1+h" (draw and approximate). Once you translate correctly, then draw the line and use two points from the line to get the slope.

see the next page for some studying advice…

OLD EXAMS:

Here are some old exam questions that pertain to material we have done lately. Try these problems out now to get an idea of how you well you are understanding the material and to access if you are ready for the first exam.

You can also see the entire exam archive here: OLD EXAM ARCHIVE

You can find lots of problems like 9.3 and 9.4 by flipping through old exams, here are a couple of each…

For practice with 9.3 material try:

Winter 2019 (Loveless) Exam 1 Problem 2

Spring 2016 (Taggart) Exam 1 Problem 3

For practice with 9.4 material try:

Winter 2017 (Taggart) Exam 1 Problem 1(c)

Spring 2018 (Taggart) Exam 1 Problem 1(a)(ii)

IMPORTANT COURSE COMMENTS

I have had a few students asking for extra submissions or extensions, a few notes on this…

1. Start your homework early! Plan to be done 2-3 days before it closes.
2. You can get an extension automatically through Webassign, but there is a small penalty for problems completed after the due date, plus you need to know that material for the quiz the next day, so you need to finish it!
3. We will NOT give more submissions. The fact that you have 5 submissions is already too generous. Here is how you should do the homework.
   (a) Read the question and attempt the problem.
   (b) If the first submission is incorrect, reread and make sure you understand the graph and the question. Also make sure you were as accurate as possible (did you print off the large graph and draw lines and do things as accurately as you could?). If you think it is an accuracy thing, then ask look carefully and ask if you think your estimate is an over or under estimate and adjust.
   (c) If your second submission is incorrect, then move on to other questions and ask someone about that problem later (a classmate, a tutor, me).
   (d) You should NEVER use more than 3 submissions.
4. Worse case you miss something on homework (a multiple choice or you use 5 submissions), we do allow students to miss up to 20 points and still get 100% for their homework grade at the end of the term. Also one point on one homework has an extremely small impact on your grade. So instead focus on learning the material. **Keep asking yourself, could I do this on a quiz under time-pressure given only 1 submission?**
5. Lastly, there are lots and lots of ways to get help including:
   (a) The Lab - 12:30am to 2:30pm - every Tuesday and Thursday!
   (b) Discussion Board – open all the time! You can get there through Canvas.
   (c) Office Hours – Between your instructors and TA's there are many options, see Canvas.
   (d) CLUE tutoring – open in the evenings at Mary Gates hall (as well as virtual).
   (e) Check out review sheets and homework hints.

Remember on a test/quiz you only get ONE submission! So use the homework for practice and get the answer correct the first time (don't use submissions to check your work, practice checking your work yourself).

For those think the homework is too challenging, you should expect about 3-4 hours of homework each week for this class. I looked at the stats from last quarter and most students used 1-3 hours for homework (often less), so if you plan for 3-4 hours, then you'll be happy to find it isn't that long. So spread it out, I strongly advise you to put in a solid 30 minutes to an hour on the homework ***immediately*** after watching the lecture video. Then you'll be mostly done with that assignment and you'll know what your questions are for the week ahead. But if you wait to start, you don't remember what you saw in the video and won't have time to ask questions.

You can all do this and I want you to do well. I hope you find these newsletters to be helpful. See you in class.

Dr. Andy Loveless