Math 111 End of Week 4 Newsletter

UPCOMING SCHEDULE:
Friday (Today): Section 1.6 and exam review
Monday: Exam Review (bring questions)
Tuesday: MIDTERM 1, in your normal quiz section
Wednesday: Section 2.1: Intro to Quadratics (Solving)
Thursday: Activity 4
Friday: Section 2.2: More with Quadratics (Vertex and Intro to Applications)
IMPORTANT: Exam 1 is Tuesday, Oct. 25. It will cover Supplement 1-9, Sections 1.1-1.3, and Problem 1-6 in Section 1.6.

HOMEWORK: Closing Next Thursday (by 11pm): 1.6
Hint: Big Hint on the Last Homework of Problem 1.6 (there is some wording here that often confuses students):
For a given commodity, assume you know: Demand Curve: $p = -4q + 100$, Supply Curve: $p = 10q + 244$
Then, in the next year, the government levies a tax of $42 per item on the supplier and they pass that on as a price increase to the consumer. Don't worry about this wording, what it means is that the Demand Curve does not change (consumers are still willing to buy the same amount at a certain price), but the Supply Curve does change; we aren't changing the slope of the supply curve (we are manufacturing in the same way), we are just shifting the price.
You don't know need to know all this, all you really need to know is that
New Demand Curve: $p = -4q + 100$ (unchanged), New Supply Curve: $p = 10q + 244 + 42$, so $p = 10q + 286$.
Now you can do it.

WEEK 4 HOMEWORK STATS:
     SUPPLEMENT 8-9 HW: Median Score = 100%, Median Time Browser Open to HW = 2 hours 10 minutes
     SECTION 1.1 HW: Median Score = 100%, Median Time Browser Open to HW = 56 minutes
     SECTION 1.2 HW: Median Score = 100%, Median Time Browser Open to HW = 16 minutes
     SECTION 1.3 HW: Median Score = 100%, Median Time Browser Open to HW = 19 minutes

Exam Rules:
1. It covers Supplement 1-9, sections 1.1-1.3 and problems 1-6 of Section 1.6 (specifically, you don't need to know the terms supply/demand for exam 1).
2. You will take it in your **normal quiz sections** on Tuesday, Oct. 25.
3. There will be four pages of questions and you will write your answers in the spaces provided.
4. You have 50 minutes, so time is a factor. Plan appropriately. **Never spend more than 10 minutes on a page!**
5. You are allowed:
    a. A Ti – 30X IIS Calculator (this model only)
    b. A ruler
    c. One 8.5 by 11 inch sheet of **handwritten notes** (you can write on the front and back)
    d. A pencil
6. **There are multiple versions of the test**, if you give any answer (even just one) that is only appropriate for the other version, then we will submit the exam to the academic misconduct board (in which case you will meet in front of a panel of professors to explain your actions). If the committee finds you guilty of academic misconduct, then you will get a zero on the entire exam and you will face other disciplinary actions (probation or expulsion depending on the severity of the cheating). DO NOT CHEAT!!! **To avoid suspicion of cheating, keep your eyes on your own paper and <u>show all your work</u>**!
    Show your work as follows:
    (a) Label any lines you draw.
    (b) Write down any points you use to find a slope.
    (c) <u>Every problem should have some calculation or some explanation or some supporting work of some kind</u>.
7. If you have questions about what our exam will look like, then look at any of the exams in the exam archive (our exam will look just like all of these): http://www.math.washington.edu/~m111/Archives.html
    (My cover sheet will look just like the cover sheet I used for my exam last fall which you can see in this archive)

Exam Notes

1. **Homework!** You should know all the homework well. The majority of the exam will be almost word for word the same as problems you saw in homework. **ALL homework is fair game. If I give a problem that is identical to homework, even a "challenging homework problem", then you should be able to comfortably do it.**

2. **Old Exams**: If you are desperately worried about your grade in this class and your performance on this exams, then you should work through ALL the old exams from the Midterm 1 section of the exam archive. Here is the link for the exam archive yet again: http://www.math.washington.edu/~m111/Archives.html

3. Having a high homework score does NOT guarantee that you will get a high exam score. You only get one submission on the exam and you don't get help from a tutor. You need to practice in an exam-like situation if you hope to do well on the exam.

4. You should study the exams in the exam archive in two different ways:
   a. **Detail Studying**: Work through several old midterms in detail (put yourself in an exam like situation including timing yourself). This will get you ready for what it will feel like when you take the test.
   b. **Quick Recognition**: A different (and very useful) other type of studying is problem recognition. Here is how you do it:
      i. Get out some notebook paper, then open up the exam archive and click on an exam.
      ii. Read 1(a) and on your paper write in words what you would do. Spend no more than 10-15 seconds doing this. If you don't know how to do it, make a star and come back to it later.
      iii. Then do the same thing for 1(b) (again spend no more than 10-15 seconds). Write down how you would start the problem.
      iv. Keep doing this through the entire exam (it should take you less than 5 minutes).
      v. Then do it again for another exam. In this way, you can look through 4 or 5 exams in 20 minutes. And you get exposure to lots of problems. You also gain confidence and you quickly learn which recurring topics you are struggling with.

5. **There are NO make-up exams for any reason! Set multiple alarms and don't oversleep.**
   You should plan on taking the exam no matter what happens. You need to be there!
   Having a cold is not a reason to miss the test.
   If you do have to miss for unavoidable and well-documented reasons here is the policy:

   If you are _extremely_ sick the day of the exam and physically unable to be at the exam (actively vomiting, in the emergency room, etc…), then you should go to the hospital or hall heath to get _a doctor's note that clearly indicates you are physically unfit to take the exam_ (you get one free visit to hall health as a student).

   If you have an _unavoidable, extreme emergency_ come up, then you need to let me know as soon as you can and provide _documentation that clearly indicates that your attendance to the exam was not possible_.

   In either case, after I see your clear documentation your grade will be prorated (meaning the exam will be thrown out and your other exams will be weighted significantly more heavily). **There are no make-up exams.**
   If you miss the exam and don't contact me or you don't provide documentation, then you get a zero on the exam. Take the exams seriously.

NEW POSTINGS:
Here are some new (and old) postings that should help you now:
1. **Visual Mini-Quiz on the Business Graphs** (with solutions):
TR-TC-VC and MR-MC Graphs Quiz:
http://www.math.washington.edu/~aloveles/Math111Fall2016/TR-TC-VC%20and%20MR-MC%20Review%20Quiz.pdf
TC-VC and AC-AVC Graphs Quiz:
http://www.math.washington.edu/~aloveles/Math111Fall2016/TC-VC%20and%20AC-AVC%20Review-Quiz.pdf
2. One page review of the key terms and facts so far (I handed this out in class Wednesday):
http://www.math.washington.edu/~aloveles/Math111Fall2015/SupplementsMinimalReview.pdf
3. **Section 1.1 to 1.3 Review with examples**:
http://www.math.washington.edu/~aloveles/Math111Fall2015/Section1.1-1.3Review.pdf

4. **Section 1.6 Review with examples:**
Review (the first page of this is a good general review of functions, but you are not responsible for the supply and demand material on the second and third pages for Exam 1. Those pages will be a good reference when you are working on the Section 1.6 homework**)**
        http://www.math.washington.edu/~aloveles/Math111Fall2015/Section1.6Review.pdf

Here are some **old postings** you might want to look at if you haven't already:
5. A review of everything from Supp. 1-9:
        http://www.math.washington.edu/~aloveles/Math111Fall2015/SupplementGraphsReview.pdf
6. A breakdown/categorization of all homework questions that starts with a "total amount graph":
        http://www.math.washington.edu/~aloveles/Math111Fall2015/SuppHomeworkBreakdown.pdf
7.   Visual Summaries of the Business Graphs we have discussed:
        http://www.math.washington.edu/~aloveles/Math111Fall2015/BusinessGraphVisualSummary.pdf
8. Remember that all previous review sheets and postings can also be found on the right side of the course website here: http://www.math.washington.edu/~aloveles/Math111Fall2015/index.html

YET, EVEN MORE STUDYING ADVICE
I strongly encourage you to use my method for studying that I described early in this newsletter about problem recognition (scanning through several exams quickly and making notes as I described).
I just did this exercise myself: Over the last 10-15 minutes, I flipped through ALL the exam in the exam archive. I pretended I was a student and I made some general observations for myself. Below are my notes:

When I just flipped through a handful of old exams, here is what I see:
1. Three pages containing reading and working with graphs; 1 page that has something to do with algebra/lines.
2. One or two pages that have to do with business, and 1 or 2 pages that have to do with distance or reservoirs or weight or stock.
3. One page or part of page that has some incremental or rate information in a graph. (change in temp, change in stock value, etc…) On these, we put our ruler away and just read carefully.
4. Functional notation often appears in several places. And there is typically some translation to do.
5. Most questions have to do with finding rates or using rates. That is the key concept so far.
6. There are several problems where you need to know the business terms, definitions and formulas.
7. Almost all the questions appear in homework in a similar (and in most case identical) form. Go look and see if you can find any problems in the old exams that don't look very similar to homework (you won't be able to find any).
8. There is very little that you have to adapt to on these exams (in our typically calculus series, we always have a few problems that make students adapt the concepts to a new scenario, that happens less in this class because we are mostly defining terms), so if you know the homework and the key concepts, you should do well. That being said, it is certainly reasonable for there to be a part of problem or two that require slight adaptation or some significant critical thinking to solve. Again, if you know the definitions and the homework, you will immediately know how to do the vast majority of the problems. (so if things are getting complicated, then you probably are making a mistake)

On Monday, I will have an open review in lecture. Please bring questions to class! You are welcome to attend several of my lectures (9:30, 10:30 and 11:30) if you want to hear more questions. The MSC is open and I also have office hours Monday. So all together, you have a lots of time on Monday you can get your last minute questions answered.

Okay, enough for now.

Dr. Andy Loveless