

Math 111 End of Week 3 Newsletter

IMPORTANT: Exam 1 is Tuesday, Oct. 25. It will cover Supplement 1-9, Sections 1.1-1.3, and 1.6

UPCOMING SCHEDULE:

Friday (Today): Section 1.1
Monday: Section 1.2, 1.3
Tuesday: Test Prep and HW discussion
Wednesday: Section 1.6
Thursday: HW discussion and exam review
Friday: Section 1.6 and exam review

Activity 3 solns: <http://www.math.washington.edu/~aloveles/Math111Fall2016/Activity03key.pdf>
Supplement 5 Stats: median score = 97%, median time = 123 minutes
Supplement 6-7 Stats: median score = 100%, median time = 75 minutes
NEXT HOMEWORK: Closing Tuesday (by 11pm): Supplement 8-9
Closing Thursday (by 11pm): 1.1, 1.2, and 1.3

HOMEWORK HINTS: Here are some hints on common questions for next week's homework, PLEASE READ!

SUPPLEMENT 8-9 / PROBLEM 2(h): The question asks to find the range of quantities over which $MC(q) \leq 2.50$.

Step 1: **First find all quantities at which $MR(q) = 2.50$** (you should know how to do this with a reference line).

Step 2: Make appropriate conclusions.

SUPPLEMENT 8-9 / PROBLEM 3(e): You're supposed to use the selling price of 10 dollars/item from the previous part.

Step 1: Observe $MR(q) = 10$ (constant) and $TR(q) = 10q$. Draw MR (a horizontal line on the MC, AC, AVC graph)

Step 2: Find the quantity at which MR intersects MC, you get $q = 46$.

Step 3: Now you need to find the profit at $q = 46$ which is a bit a puzzle given what you know.

Thus, **you need to find $P(46) = TR(46) - TC(46) = ???$**

a) Find $TR(46) = ??$ (re-read all the info you have, there is enough to immediately know this)

b) Find $TC(46) = ??$ (you should know how to find $TC(46)$ by reading another value off the graph).

SECTION 1.1 / PROBLEM 1 and 2: **Leave your final answer as a precise fractions.** I said this in class and it says it at the beginning of the assignment, but I wanted to remind you again.

SECTION 1.1 / PROBLEM 6: In this problem, it says that in the formula "r" represents the number next to the percent sign (It says "r%"). **So if the problem says that interest rate is 15.9%, then that means $r = 15.9$ in this formula** (it does NOT mean 0.159 in this formula).

SECTION 1.1 / PROBLEM 12: The questions says "After how many days...". **It wants after how many whole days.** If you solve and find the values are equal at 6.6 days (for example), then the answer would be after 6 days it starts to become cheaper (note by saying "after 6 days", you aren't including 6). So you need to round down.

SECTION 1.2 HW / PROBLEM 3: **Notice that you can EXACTLY give the values of $f(0)$ and $f(6.5)$, because they tell you enough information in the picture!** Some students try to approximate and email me angry because they think Webassign is being picky, but Webassign should be picky here because you know everything you need to know to give the exact answers.

OLD EXAM QUESTIONS FOR PRACTICE:

Remember the exam archive is here: <http://www.math.washington.edu/~m111/Archives.html>

For practice with Supp. 8-9 look at:

Problems 2 and 3 from: <http://www.math.washington.edu/~m111/Midterm1/aut13ExamIbkeyel.pdf>

Problems 1 and 3 from: http://www.math.washington.edu/~m111/Midterm1/aut14_MT1_loveless.pdf

For practice with sections 1.1-1.3 and 1.6 look at:

Problem 4 from: <http://www.math.washington.edu/~m111/Midterm1/win14ExamIbkeyel.pdf>

Problem 4 from: <http://www.math.washington.edu/~m111/Midterm1/aut13ExamIbkeyel.pdf>

Problem 4 from: http://www.math.washington.edu/~m111/Midterm1/aut14_MT1_loveless.pdf

NEW POSTINGS:

Now is the time to be reviewing and organizing your understanding of the concepts so far. Here are some postings to help you do this

1. **A review of everything we have done so far (Supp. 1-9):**
<http://www.math.washington.edu/~aloveles/Math111Fall2016/SupplementGraphsReview.pdf>
2. **A breakdown/categorization of all homework questions that starts with a "total amount graph":**
<http://www.math.washington.edu/~aloveles/Math111Fall2016/SuppHomeworkBreakdown.pdf>
3. **Visual Summaries of the Business Graphs we have discussed:**
<http://www.math.washington.edu/~aloveles/Math111Fall2016/SuppHomeworkBreakdown.pdf>
4. Remember **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/Math111Fall2016/index.html>

IMPORTANT NOTE:

Remember: 100% on homework does NOT guarantee a good grade on the exams (100% on homework is just the first step). Typically the median on the first test is around 75%. However, based on past history, there always are quite a few students that have 100% homework and end up with exams scores below (or well below) 60%. In fact you can get 100% on homework and still fail the class (I have seen this several times). **Remember most of your grade comes from your exam scores, so you should be expending MORE energy and time preparing for the exams than you are using to complete the homework.** If you are spending four hours a week completing the homework, then you should be spending more than four hours studying the week before each exam. You need to remember:

1. You only get one submission on exams (you don't get 5 tries like in homework).
2. You won't have a tutor helping you during the exam.
3. The exams will be very much like homework. Many questions will come directly from homework, so you will have no excuse not to be prepared.
4. There will be some parts of some questions that are small adaptations of homework. For these you need to make sure you understand the underlying concepts.
5. One of the best things to do is to work through ALL the exams in the exam archive. And work through them COMPLETELY on your own in an exam-like setting (go sit in a classroom and time yourself). You need to practice for exams in a way that is exactly like the atmosphere you will be in when you take the actual exam.

In addition, read my advice here:

<http://www.math.washington.edu/~aloveles/Math111Fall2016/ExamAdvice.pdf>

EXAM STUDY TIP:

(I already gave this tip, but I'm giving it again because I personally always found it to be successful when I was a student; I didn't lose a single point on any exam my first year of graduate school when I started using this studying method.).

Print off several old midterms NOW!! The midterms mentioned above and others can be found in the exam archive here: <http://www.math.washington.edu/~m111/Archives.html>

When I was a graduate student I found that an effective use of my time was to:

1. **Work through 4-6 exams one night over a week before the exam** (so by this coming Tuesday). Try to trick yourself into thinking the exam is the next day. Have an intense studying session!
2. **Then ask questions and clarify over that week.** (This also makes you more prepared for review sessions). **Also review homework and see if you have missed any topic (you need to know all the homework problems well).**
3. **Work through several more exams two nights before the midterm.**

In doing this you will expose yourself to a lot of problems and, more importantly, you will give your mind time to think about the material and ask questions. You'll also have confidence to know what an exam will look like. And it really only takes two intense studying sessions (a week before and two days before). So this is an effective use of time.

I hope you find these newsletters to be helpful. See you in class.

Dr. Andy Loveless