

## Math 111 End of Week 7 Newsletter

### UPCOMING SCHEDULE:

Friday (Today): Section 4.2: Linear Programming (we will finish the lecture pack examples)  
Monday: Section 5.1 & 5.2: Exponential Functions (we will learn about  $y = e^x$ ), Powers/Roots  
Tuesday: Test Prep  
Wednesday: Section 5.2 & 5.3: Exponentials and Logarithms  
Thursday: Review  
Friday: Review

### NEXT WEEK HW SCHEDULE:

Closing Tuesday: Section 4.2  
Closing next Thursday: Section 5.1 & 5.2 (together in one assignment)  
Closing Monday (Nov. 23): Section 5.3 (plan to finish this early!!!)  
(You are expected to know ALL this material for midterm 2. Finish it much earlier than the closing date)

### IMPORTANT NOTE:

Tuesday, November 24<sup>th</sup>: Midterm 2 Covers 1.6 (supply/demand),  
2.1-2.3 (quadratics/applications),  
1.5, 4.1, 4.2 (linear programming)  
5.1-5.3 (powers/root, exponentials/logarithms)

### WEEK 7 HOMEWORK STATS:

Section 2.3(part 2) HW: Median Score = 97.5%, Median Time Browser Open = 2 hours 20 minutes

Section 1.5 HW: Median Score = 100%, Median Time Browser Open = 45 minutes

Section 4.1 HW: Median Score = 100%, Median Time Browser Open = 42 minutes

### ACTIVITIES:

Activity 6 gives a nice example of linear programming. I hope you found that helpful.

The Activity 6 solutions are online here (this link won't work until Friday):

<http://www.math.washington.edu/~aloveles/Math111Fall2015/Activity06key.pdf>

### MATERIAL NOTES:

1. You WILL see a linear programming problem on the midterm. Check out the 4.2 review sheet and old exams for more examples (in addition to those from class and in the homework).
2. I have posted a huge exam 2 review sheet, check it out.
3. A strong understanding of powers, roots, exponentials and logarithms is needed before we start the last topic (interest bearing accounts) which we will do after exam 2. If you have trouble with exponent rules, now would be a good time to review. I have posted some additional review sheets to help you review these facts.

## NEW POSTINGS:

1. **Discussion of the full Linear Programming Method (from 4.2) with full examples:**

<http://www.math.washington.edu/~aloveles/Math111Fall2014/Section4.2Review.pdf>

2. **Extensive Exam 2 Review:**

<http://www.math.washington.edu/~aloveles/Math111Fall2015/Exam2Review.pdf>

3. **Overview on how to solve any equation:**

<http://www.math.washington.edu/~aloveles/Math111Fall2015/m112reviewSolving.pdf>

4. **Common Calculation Mistakes Comments:**

<http://www.math.washington.edu/~aloveles/Math111Fall2015/Math111CalculationErrors.pdf>

5. **Overview and fact sheet for 5.1, 5.2, and 5.3:**

<http://www.math.washington.edu/~aloveles/Math111Fall2015/Section5.1-5.3Review.pdf>

6. **Exponents and Fractions Review** (there are some quick problems on here for practice, solutions are NOT included, if you can't do these then come talk to a tutor in the MSC):

<http://www.math.washington.edu/~aloveles/Math111Fall2015/exponentrules.pdf>

## OPTIONAL PRACTICE HOMEWORK NOTES:

This week, I taught myself how to code problems into Webassign and I am using that new knowledge to make two OPTIONAL review assignments. You can see these if you log into Webassign. Here are some facts about these assignments:

They are worth NO points (these are just optional practice for chapter 2 material).

You get 100 submission on each problem.

**After 1 failed submission you will see the correct answers and notes on how to do the problem.**

I currently have them set to close the Sunday before the next midterm.

So this is really just to help you study. Let me explain the two assignments:

A) "(Optional) Ch 2 Functional Notation Review"

Do you know how to go from AVC to VC or how to go from TC to MC or how to go from price to TR? Do you know how to find MC if the units are hundreds or thousands? These skills should be routine at this point. So I created this collection of quick problems that give you a chance to test yourself on these skills. All you do in these problems is go from one applied function to others. Most of these should be very fast!

B) "(Optional) Ch 2 Review - Problems from Old Exams"

Algebraically: Do you know how to find maximum profit? Do you know how to find SDP? Do you know how to find when TR is increasing? Do you know how to find when AC is equal to 1.75? ... This is a collection of problems directly from old exams that have to do with chapter 2 and should give you some quick practice with these types of problems. I had planned to code in all the old exam questions, but the coding actually takes a long time so I stopped after about 8 problem, but that should give you a good start on your studying, then you can move to the exam archive. And again after one submission you will see the answers and a description of how to do the problem.

Understand that this is my first time coding in Webassign and I just quickly wrote this over the last several days, so if you find typos or if you notice something unusual, please let me know. This is just a bit of an experiment. Let me know if you find this useful.

## OLD EXAMS:

Here are some old exam questions that pertain to 4.2 linear programming:

Problem 4 from:

[http://www.math.washington.edu/~m111/Midterm2/aut14\\_MT2\\_loveless.pdf](http://www.math.washington.edu/~m111/Midterm2/aut14_MT2_loveless.pdf)

Problem 3 from:

<http://www.math.washington.edu/~m111/Midterm2/sum13ExamIItaggart.pdf>

Problems 3 from:

<http://www.math.washington.edu/~m111/Midterm2/aut13ExamIlbekyel.pdf>

And you can find many more. Every all old second midterms has a page with a linear programming problem.

Okay, if you find something helpful here, please advertise to your classmates. I want these materials to be used.

Dr. Andy Loveless