UPCOMING SCHEDULE:

Friday: Section 5.2/5.3: Exponentials/ Logarithms (learn to solve things like $5(1.02)^{4x} = 100$ using natural logs).
Monday: Finish 5.3 and do a structured review for the second exam.
Tuesday: Test Review and HW questions (please ask lots of 5.1, 5.2, and 5.3 questions)
Wednesday: Exam review, please bring questions
Thursday: **MIDTERM 2** (in your normal quiz section)
(Next) Friday: Section 6.1 (start new topic on interesting bearing accounts)

ACTIVITIES: Activity 6 gives a nice example of linear programming. The Activity 6 solutions are online here:
http://www.math.washington.edu/~aloveles/Math111Winter2020/Activity06key.pdf

Logarithms and Roots Note: Some students tell me they are scared by "logarithms", you shouldn't be. I will show you that we can resolve any confusions you have quickly. We really do need these skills before we move on to chapter 6. These topics (powers/roots, exponentials/logarithms) are covered several times in the 7th, 8th, and 9th grade curriculums in middle school and high school (my son just brought a middle school math packet home that is all about exponentials and logarithms), then used extensively in various math courses. So I know you have seen these ideas, but if you are fuzzy on them, then now is the time to clear up any confusions you've had in the past. If you are worried please…
- Read 5.1, 5.2, 5.3 before class Friday.
- Check out my 5.1, 5.2, 5.3 review sheets this weekend (contains many worked examples on the last two pages)
    http://www.math.washington.edu/~aloveles/Math111Winter2020/Section5.1-5.3Review.pdf
Again, sections 5.1 to 5.3 are just reviewing how to solving equations that involve powers and roots. No applications yet, just the mechanics of solving.

NEXT WEEK HW SCHEDULE:

Closing Tuesday: Section 5.1/5.2 **AND** 5.3
Closing Next Thursday: Optional Ch. 2 Functional Notation Review (not worth any points, just more practice)
                                Optional Ch. 2 Old Exam Problems Review (not worth any points, just more practice)

EXAM 2 coverage and notes:
Thursday, February 27th: 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)
    1. Expect a page on linear programming.
    2. Expect 2 pages on chapter 2 material.
    3. Expect something about supply and demand.
    4. Expect that you will have to solve at least one problem involving powers/roots or exponentials/logs.

NEW POSTINGS:
1. **Extensive Exam 2 Review:**
        http://www.math.washington.edu/~aloveles/Math111Winter2020/Exam2Review.pdf
2. **Overview and fact sheet for 5.1, 5.2, and 5.3**:
        http://www.math.washington.edu/~aloveles/Math111Winter2020/Section5.1-5.3Review.pdf

See next page for more studying advice and for times and locations to get extra help….

Reminders about how to study: (you can find a lot more advice in previous newsletters and emails)

1. Spend some time looking through ALL the homework covered on this exam. Make notes on things that confused you and check out the review sheets, lectures or book to remind you about those topics. There will be at least one problem that is essentially word-for-word the same as homework (and all exam problems will be like the homework).

2. As soon as possible, work through a few old exams in detail. Try to put yourself in an exam-like situation. Don't just read solutions; reading solutions does not count as studying.

3. If you find that you are struggling with a particular type of problem, then check out the corresponding review sheet and homework. Also you can practice several old exam problems of a particular type, by using the targeted practice from my newsletters (I have copied this targeted practice on the next page.

4. After you have worked through several exams in detail, spend some time flipping through all the other exams. Do you know how to start those problems? Does anything surprise you? etc..

ADDITIONAL OFFICE HOURS: Most of your studying should be done on your own; actively working problems. But if you run into a topic that keeps confusing you then a tutor, or I, can answer your questions in class or office hours.
Here are times you will have direct access to me (Dr. Loveless):

Friday: 11:00am - 1:30pm in or outside Mary Gates Hall 389 (our classroom).
                 1:45pm - 3:00pm in the Math Study Center.
Monday: 11:00am - 1:30pm in or outside Mary Gates Hall 389
                 1:45pm - 3:30pm in the Math Study Center
Wednesday: 11:00am - 1:30pm in or outside Mary Gates Hall 389
                 1:45pm - 2:30pm in the Math Study Center

The many, many, many other places you can get help:
The Math 111/112 Study Center is open 12:30-4:30pm on Monday-Thursdays.
CLUE tutoring (in Mary Gates Commons) is open 7pm to 11pm Sundays – Thursdays. More info here:
    http://webster.uaa.washington.edu/asp/website/clue/drop-in-tutoring/
Try the instructional center (IC) open to minorities 9am to 8pm Monday-Thursdays. More info here:
    https://depts.washington.edu/ic/content/hours.php?style=graphics
If you can't make any of these hours, you can also try the regular Math 120/4/5/6 study center (open 9:30am to 9:30pm) which is next door to the Math 111/112 study center. Those tutors are less experienced with business terminology, but they all are experts on algebra which is what this next exam is mostly about, so they can help you.
So you see that there are free tutoring options from 9am to 11pm almost every day. But you have to start studying early and actually use these options before they get busy.

OLD EXAMS: You should be working through all the **second midterms** in the exam archive which you can find here:
http://www.math.washington.edu/~m111/Archives.html

Here is targeted practice on exponential/logarithm Problems from old exams (5.1-5.3):
Problem 4(b) from: http://www.math.washington.edu/~m111/Midterm2/au15_MT2_Loveless.pdf
Problem 1(b) from: http://www.math.washington.edu/~m111/Midterm2/aut14_MT2_loveless.pdf
Problem 4 from: https://sites.math.washington.edu/~m111/Midterm2/Wi17_MT2_bekyel.pdf
Problem 4(b) from: https://sites.math.washington.edu/~m111/Midterm2/au16_MT2_Loveless.pdf

See previous newsletters for targeted practice on other recent topics.

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

- Dr. Andy Loveless