

Math 207 Week 6 Newsletter – Dr. Loveless

UPCOMING SCHEDULE:

Friday: Section 3.7 (part 2): Mass-Spring – with damping (still no forcing function)
Monday: Section 3.8 (part 1): Mass-Spring – no damping but with forcing (two wave solutions & resonance)
Wednesday: Section 3.8 (part 2): Mass-Spring – with damping and forcing (steady state solutions)
Next Friday: Section 6.1: Intro to Chapter 6

HOMEWORK: HW 6 closes Tuesday (it covers 3.4 and 3.5, please get this done as soon as you can!)
HW 7 closes the following Tuesday (the day before our second midterm), it covers 3.7 and 3.8.
Please take your time with HW 7 give yourself a few days, don't wait until the last minute.
As always, please ask questions and find hints on the [Discussion Boards](#).

NEW POSTING: Here is the link again to [Dr. Loveless review materials page](#).

In particular check out the materials..

1. [Intro on the set up for 3.7/3.8 Mass-Spring systems \(examples included\)](#)
2. [Summary of 3.7 analysis](#) (Free Vibrations with and without damping, but no forcing function)
3. [Summary of 3.8 analysis](#) (Mass-spring systems with a periodic forcing function)
4. [Summary of "beats"](#), i.e. how to graph solutions involving two waves of different frequencies.
5. [Full Summary of 3.7/3.8](#)

Also, I have some "skill review" sheets that I think will help you....

Skills Review – [Working with and graphing sums of Sine and Cosine waves](#)

Finally, here is an updated [Exam 2 Review Sheet](#).

OLD EXAMS: Exam Archives: [Personal Exam Archive](#) and [Department Exam 2 Archive](#)

Here is some targeted practice on the current material from these archives (see previous newsletters for targeted practice on previous topics)...

Practice for 3.5 (Undetermined Coefficients):

- [Problem 1 from Loveless 2016 Exam 2](#)
- [Problem 3\(a\) and 4 from Loveless 2015 Exam 2](#)
- [Problem 1 from Spicer 2014 Exam 2](#)
- [Problem 2 from Dept. Exam Archive Exam #2](#)

Practice for 3.7 (Mass-Spring without Forcing):

- [Problem 2, 4 and 5\(a\) from Loveless 2016 Exam 2](#)
- [Problem 1 and 2 from Loveless 2015 Exam 2](#)
- [Problem 3 of Spicer 2014 Exam 2](#)
- [Problem 4 from Dept. Exam Archive Exam #2](#)
- [Problem 4 from Dept. Exam Archive Exam #3](#)

Practice for 3.8 (Forced Vibrations):

- [Problem 3 from Loveless 2016 Exam 2](#)
- [Problem 2\(b\) and 3 from Loveless 2015 Exam 2](#)
- [Problem 4 from Erickson 2013 Exam 2](#)

Start with the homework and review sheets (make sure you know terminology from lecture/review sheets), then try the exam questions above (and in previous newsletters), then if you are looking for more review check out other old exams in the archive, there is plenty to practice.

I hope this helps! - Dr. Andy Loveless