Math 126 End of Week 2 Newsletter

UPCOMING SCHEDULE:
Friday: Section 12.5 (lines/planes) and 12.6 (traces and names of some 3D surfaces).
Monday: Section 10.1/13.1 (intro to parametric curves in 2D and 3D)
Tuesday: Homework Question and Answer (bring lots of HW questions).
Wednesday: Section 10.2/13.2 (calculus on parametric curves in 2D and 3D)
Thursday: Worksheet on skills from parametric curves and introducing polar coordinates.
Next Friday: Section 10.3 (polar coordinates)

WORKSHEET 2(a)(b)(c) solutions (from Thursday's quiz section) are posted here:
http://www.math.washington.edu/~aloveles/Math126Winter2016/sp13m126Worksheet2aSolns.pdf
http://www.math.washington.edu/~aloveles/Math126Winter2016/sp13m126Worksheet2bSolns.pdf
http://www.math.washington.edu/~aloveles/Math126Winter2016/sp14m126worksheet2cSolns.pdf
(Read through these to make sure you understood the concepts in those worksheets)
WORKSHEET 3: Print this off and bring it to quiz section next Thursday.
http://www.math.washington.edu/~aloveles/Math126Winter2016/sp14m126worksheet3.pdf

HOMEWORK:
  Closing today at 11pm: 12.4 (part 1), 12.4 (part 2), 12.5 (part 1)
  Closing Tuesday at 11pm: 12.5 (part 2), 12.5 (part 3), 12.6
  Closing Thursday at 11pm: 10.1/13.1
PREVIOUS HOMEWORK STATS:
12.1:   median score = 100%,   median time browser open to assignment = 135 minutes
12.2:   median score = 100%,   median time browser open to assignment = 110 minutes
12.3:   median score = 96%,   median time browser open to assignment = 120 minutes
12.4(1): median score = 100%,   median time browser open to assignment =   20 minutes
12.4(2): median score = 100%,   median time browser open to assignment =   36 minutes
Homework Notes:
1. The vast majority of the class got at or near 100% on the first three assignments. It is an important **first step** to do well on all the homework. The exam problems will look a lot like homework so if you **understand** all the homework, then you will do well on the exam. Just make sure you could answer similar questions in an exam-like situation.
2. *Remember to review the homework and look back at solutions*: Only 3 student in the class have gone back and looked at the previous homework solutions. Please remember to go back and review the homework and the solutions at the end of each week (even if you get the questions correct, it is good to see solutions for other approaches to the problem).
3. Remember that I round up by 5%, so even if you miss a few homework problems you can still get 100% for homework.
4. Also remember that 100% on homework certainly does NOT guarantee a good grade on the exams. It is vital to:
  a)   Get homework correct in one submission (just like on an exam).
  b)   Practice checking your work (just like on an exam).
  c)   Ask yourself if you could do a similar problem on an exam (all homework is fair game).
  d)   Start looking at old midterm exams and seeing if you can do some of the problems.
  e)   If you want more practice, go find similar problems in the textbook (or eBook).

NEW POSTINGS
Remember the course website is here: https://sites.math.washington.edu/~aloveles/Math126Spring2017/index.html
There are several new postings:
1. **12.5**: **An overview of basic facts from 12.5 Intro to Lines and Planes**:
        https://sites.math.washington.edu/~aloveles/Math126Spring2017/sp14m126review12-5.pdf
2. **12.5**: **One-Page Summary and Flowcharts for Finding Lines and Planes**:
        https://sites.math.washington.edu/~aloveles/Math126Spring2017/12-5%20Summary.pdf
3. **12.5**: **Thirteen Practice Problems of each type for lines and planes (full solutions included!)**:
        https://sites.math.washington.edu/~aloveles/Math126Spring2017/sp12m126PlanesAndLines.pdf
4. **12.6**: **Summary of 12-6 (Names of some 3D shapes) with visuals and examples of each**:
        https://sites.math.washington.edu/~aloveles/Math126Spring2017/12-6%20Overheads%20(Landscape).pdf

SUPPLEMENTAL POSTINGS

1. **For your own interest, I posted a discussion of conic sections which includes some visuals of hyperbolas**.
    http://www.math.washington.edu/~aloveles/Math126Winter2015/ConicSectionsOverhead.pdf

OLD EXAMS:
There are many old exams (most with solutions) in the departmental exam archive here:
    http://www.math.washington.edu/~m126/midterms/midterm1.php
and in my additional exam archive here:
    https://sites.math.washington.edu/~aloveles/Math126Spring2017/examarchive.html
 (you probably should just ignore the exams marked honors unless you want an extra challenge).

For practice with 12.5 (Lines and Planes) you might try:
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126aut13lovelessExI.pdf
Problem 1 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr13lovelessExI.pdf
Problem 3 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr14taggartExI.pdf
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126win14bekyelExI.pdf
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr14rothvossExI.pdf

For practice with 12.6 (intro to surfaces) material you might try:
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr11lovelessExI.pdf
Problem 3 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr14novikExI.pdf
Problem 2a from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr13lieblichExI.pdf
Problem 5 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126aut09solomyakExI.pdf

ADVICE:
MY EXAM STUDYING STRATEGY WHEN I WAS A GRADUATE STUDENT: I always like to share how I studied when I
was in graduate school. I was an okay student as an undergraduate, but I was an excellent student in graduate school (I
got perfect scores on every exam in graduate school in my first year). Here was my studying strategy that seemed
to work so well for me:
1. **At least 1 week before an exam**, spend an intense night of studying. Try to trick yourself into thinking the exam is the
next day. Work through several old exams. This studying should consist of 2 elements:
        a) *Problem recognition*: Flip through lots and lots and lots of exams quickly and see if you can figure out how to
        quickly start each problem.
        b) *Working out the details*: Carefully work through a few exams in details to practice finishing problems and to
        practice being careful with your work.

2. After this intense studying session, talk to me or your TA or someone in the MSC to clear up any confusion you
have. (Or, like I did, just keep thinking about it on your own and trying examples until you figure it out yourself).

3. **Then at least 2 days before the exam**, put in another night of intense studying. Then when the instructor
reviews in class, all the concepts will be fresh in your mind and you will be able to ask good questions.

More days of studying is better. I often started two-three weeks in advance, this is the condensed version. But, if you
only could devote two nights to studying, then this is an efficient and effective use of your time and it gives your mind
more time to process the information.

I hope some of this helps. Now you have to put in the time and effort to really get to know these concepts well. If you
find something helpful in these newsletters, please share it with your classmates.

Dr. Andy Loveless