

Math 125 End of Week 5 Newsletter

UPCOMING SCHEDULE:

Friday: Section 6.5/7.1 (Integrating by parts)
Monday: Section 7.2 (Trig Integrals)
Tuesday: HW Q & A (You should have lots of homework questions!)
Wednesday: Section 7.3 (Trig Substitution)
Thursday: Worksheet 6 – Partial Fractions (Intro)
<http://www.math.washington.edu/~m125/Worksheets/PartialFractions.pdf>
Friday: Section 7.4 (Partial Fractions)

Worksheet 5 (Integration by parts) Solutions: <http://www.math.washington.edu/~m125/outline5.php>

HOMEWORK:

Closing Wednesday at 11:00pm: HW_5A, HW_5B (covers 7.1 and 7.2)
Closing Friday at 11:00pm: HW_5C (covers 7.3)
HW_4A: median score = 100%, median time students had browser open to assignment = 116 minutes
HW_4B: median score = 100%, median time students had browser open to assignment = 55 minutes
HW_4C: median score = 100%, median time students had browser open to assignment = 40 minutes

HOMEWORK COMMENTS AND HINTS:

On HW_5A:

Problem 9: Integrate from 0 to t . (Don't forget to plug in the 0 at the end and remember $e^0 = 1$).

Problem 10: I think it is much easier if you wait to put in the numbers until the end, start by splitting up the integral, and perhaps simplify one of the integrals with a substitution. (If you are thoughtful in how you do your work, it doesn't get messy).

On HW_5B: Get out the trig identities and follow the recipes from class!

On HW_5C: Again, you'll need all those trig identities and follow the recipe from class.

NEW POSTINGS

Here, again, is the course website: <http://www.math.washington.edu/~aloveles/Math125Winter2017/index.html>

There are several new postings:

1. **List of all the basic integrals you need to know for homework in 7.1-7.5** (these are the ones you can quote in one step, all others require a method in order to reduce it to something in this list)

<http://www.math.washington.edu/~aloveles/Math125Winter2017/7-5IntegralsWeKnow.pdf>

2. **Overview of all of the trig methods we are about to learn (7.1-7.5):**

<http://www.math.washington.edu/~aloveles/Math125Winter2017/IntegrationTechniques.pdf>

3. **7.1 Integration by parts:**

More Examples of Integration by Parts (This contains 7 standard problems and 5 extremely challenging problem):

<http://www.math.washington.edu/~aloveles/Math125Winter2017/IntegrationByPartsPractice.pdf>

Fully worked out solutions to the 7 standard problems:

<http://www.math.washington.edu/~aloveles/Math125Winter2017/m125bypartspracticesolutions.pdf>

Fully worked out solutions to the 5 extremely challenging problems (harder than homework and old exams):

<http://www.math.washington.edu/~aloveles/Math125Winter2017/m125IntegrationByPartsChallenge.pdf>

4. **7.2/7.3 Integrals involving or using trig functions:**

A review and list of all the trig identities you will need for this course:

<http://www.math.washington.edu/~aloveles/Math125Winter2017/7-2EssentialTrigIdentities.pdf>

Summary of all 7.2 cases:

<http://www.math.washington.edu/~aloveles/Math125Winter2017/7-2SummaryOfCases.pdf>

OLD EXAMS:

The math departmental exam 2 archive is here: <http://www.math.washington.edu/~m125/Quizzes/Q8.php>

Again, my personal exam archive is here:

<http://www.math.washington.edu/~aloveles/Math125Winter2017/LovelessExamArchive.html>

Here are some targeted practice problems from old exams on the current material:

for practice using Section 6.5 material (Average value):

Problem 4: <http://www.math.washington.edu/~aloveles/Math125Spring2016/f09m125e2.pdf>

Problem 1(b): <http://www.math.washington.edu/~m125/Quizzes/week8/mid2p.pdf>

Problem 5: <http://www.math.washington.edu/~aloveles/Math125Spring2016/m125sp06e2.pdf>

for practice using Section 7.1 material (integration by parts):

Problem 1(b): http://www.math.washington.edu/~m125/Quizzes/week8/win16_bekyel_2.pdf

Problem 2(b): http://www.math.washington.edu/~m125/Quizzes/week8/win16_pollack_2.pdf

Problem 5(b): http://www.math.washington.edu/~m125/Quizzes/week8/win16_pollack_2.pdf

Problem 2(b): http://www.math.washington.edu/~m125/Quizzes/week8/win13_mid2.pdf

Problem 1(c): http://www.math.washington.edu/~m125/Quizzes/week8/win16_ostroff_2.pdf

Problem 1(b): <http://www.math.washington.edu/~aloveles/Math125Spring2016/f09m125e2.pdf>

Problem 3(a): <http://www.math.washington.edu/~aloveles/Math125Spring2016/f09m125e2.pdf>

for practice using Section 7.2 material (trig integrals):

Problem 1(a): http://www.math.washington.edu/~m125/Quizzes/week8/win13_mid2.pdf

Problem 2: http://www.math.washington.edu/~m125/Quizzes/week8/win16_ostroff_2.pdf

Problem 1(b): <http://www.math.washington.edu/~aloveles/Math125Spring2016/m125sp06e2.pdf>

Problem 3(a): <http://www.math.washington.edu/~aloveles/Math125Spring2016/m125sp06e2.pdf>

Problem 2(a): <http://www.math.washington.edu/~aloveles/Math125Spring2016/f09m125e2.pdf>

for practice using Section 7.3 material (Trig Substitution):

Problem 3: <http://www.math.washington.edu/~m125/Quizzes/week8/mid2a.pdf>

Problem 2: <http://www.math.washington.edu/~aloveles/Math125Spring2016/w15m125e2.pdf>

Problem 1b: http://www.math.washington.edu/~m125/Quizzes/week8/win13_mid2.pdf

Problem 2b: <http://www.math.washington.edu/~aloveles/Math125Spring2016/sp13m125e2.pdf>

Problem 3: http://www.math.washington.edu/~m125/Quizzes/week8/aut15_burdzy_2.pdf

Problem 1a: http://www.math.washington.edu/~m125/Quizzes/week8/win16_bekyel_2.pdf

I hope some of this helps.

Dr. Andy Loveless