Math 125 End of Week 8 Newsletter

UPCOMING SCHEDULE:

Friday: Section 8.1 (Arc Length)
Monday: Section 9.1 (Intro to Differential Equations)
Tuesday: HW Q & A
Wednesday: Section 9.3 (Separable Equations)
Thursday: Worksheet 9 – Forensic Math (using differential equations on a crime scene):
                       http://www.math.washington.edu/~m125/Worksheets/DiffEQ.pdf
Next Friday: Section 9.4 (Separable Equations and Applications)

HOMEWORK: Closing Wednesday: HW_7B,7C (8.1 and some review)   Closing Friday: HW_8A (9.1).
Homework Notes and Hints:
HW_7B: Make sure you pay attention in lecture. These are some clever bits of algebra you need to evaluate some of these integrals (as we will discuss in class).
HW_7C: This is 3 questions, the first two are about arc length (for the second one, use the given formula). The third question is review of an old topic.
HW_8A: This introduces differential equations. All you have to do is derivatives!! You'll need to remember the product rule, quotient rule and chain rule and correctly put the derivatives in the right places as directed. For question 2, take the derivative of each of the options and see which ones "work" in the equation (again this section is just lots of derivatives). This is important that you understand how to check if a function is a solution to a differential equation. Then, later next week, we will actually talk about methods to find solutions.

NEW POSTINGS: No significant new postings, but do check out my lecture notes (the 8.1 lecture notes contain every formula you need for that section and lots of examples):
1.   **Lecture Notes**:   https://sites.math.washington.edu/~aloveles/Math125Winter2019/lecture.html

OLD EXAMS:
The math departmental **final exam archive** is here: http://www.math.washington.edu/~m125/Quizzes/Q10.php
Here are some targeted practice problems from old exams on the current material:

for practice using Section 8.1 material (Arc Length):
Problem 3b: https://www.math.washington.edu/~aloveles/Math125Spring2016/w11m125ce2.pdf
Problem 4a: https://www.math.washington.edu/~aloveles/Math125Spring2016/sp13m125e2.pdf
Problem 3b: https://www.math.washington.edu/~aloveles/Math125Spring2016/w15m125e2.pdf

I hope some of this helps.

Dr. Andy Loveless