

JOSH ENGWER -- MATH1451-026 (Calculus I): EXAM 4 Info/Logistics/Advice

INFO:

- When: Friday (11/30) at 3:00pm -- Duration: 50 minutes
- # Questions will be reasonable for a 50-min exam. Bonus questions? Yes
- Covers Chapter 5 except Sections 5.2, 5.8, 5.9 (see below).
- Subsections in book NOT covered (and, thus, to skip):
 - **Finite Sums & Area by Summing Rectangles** (Section 5.2)
 - **Numerical Integration** (Section 5.8)
 - **The Logarithm as an Integral** (Section 5.9)

 - Finding Anti-derivatives using **slope fields** (EXAMPLE 2, pgs 273-274)
 - Find the **demand function given marginal revenue** (EXAMPLE 9, pg 279)
 - **Riemann Sums** (pgs 290-293 + EXAMPLE 2, pg 294 + EXAMPLE 5, pg 299)
 - Solution of ODE's using **direction fields** (EXAMPLE 3, pg 318)
 - **Orthogonal Trajectories** (EXAMPLE 7, pgs 321-323)
 - **Modeling Fluid Flow** (EXAMPLE 8, pgs 323-324)
 - **Modeling Escape Velocity** (pgs 324-325)
 - **Mean Value Theorem for Integrals** (EXAMPLE 1, pgs 328-329)
 - **Odd & Even Functions** (Mentioned in the [F-T-C] Lecture Notes)
 - **Estimation of Integrals via Dominance Rule** (Last example in [F-T-C] Lecture Notes)
- Any necessary geometric (e.g. area, volume, ...) or physics results (e.g. Hooke's Law) will be provided.
- Expect **one question** requiring the use of the **2nd Fundamental Theorem of Calculus**.
- Expect the **one question about ODE's** to be a **bonus question**.

LOGISTICS:

- All you need to bring are pencil(s), eraser(s) & your Raidercard.
- Backpacks are to be placed at the front of the classroom.
- Books, notes, notecards, calculators NOT PERMITTED.
- Mobile devices (phones, tablets, PC's, music, ...) are to be shut off and put away.
- Clear your desk of everything except pencil(s) and eraser(s).
- No talking, cheating, or listening to music!
- Tissues will be furnished – for allergies, not for sobbing.
- There will be a proctor (in addition to me).

ADVICE:

- Review past homework, and perhaps even work some similar problems in the textbook.
- Review Chapter 5 in the textbook – go over relevant examples in each section.
- Use flashcards to aid in memorization of hard formulas. Study for the exam together in groups.
- Show up to the review session on Wednesday (11/28).
- **SHOW APPROPRIATE WORK!** Attempt bonus questions.