JOSH ENGWER -- MATH1451-026 (Calculus I): EXAM 3 Info/Logistics/Advice

INFO:

- When: Friday (11/09) at 3:00pm -- Duration: 50 minutes
- # Questions will be reasonable for a 50-min exam. Bonus questions? Yes
- Covers Chapter 4 except Section 4.7 on Optimization in Business/Economics/Life Sciences.
- Subsections in book NOT covered (and, thus, to skip):
  - Absolute Extrema of a **Piecewise** Function (EXAMPLE 2 on pg 186)
  - Critical Numbers of a **Piecewise** Function (EXAMPLE 5 on pg 189)
  - Using the M-V-T to establish **inequalities** (EXAMPLE 2 on pg 198)
  - The **Zero-Derivative Theorem** (THEOREM 4.5 on pgs 198-199)
  - The **Constant Difference Theorem** (THEOREM 4.6 on pg 199)
  - **Comparing Graphs** of f(x) and f'(x) (EXAMPLE 2 on pg 204)
  - The **2nd Derivative Test** (pg 209 & EXAMPLE 6 on pg 210)
  - **Epsilon Definition** of Limits to Infinity (green box on pg 217)
  - **Delta Definition** of Infinite Limits (green box on pg 221)
  - **Fermat's Principle of Optics** & **Snell's Law of Refraction** (pgs 244-245)
  - **Oblique or Slant Asymptotes** (Mentioned in Sec4.4 Lecture & [CURVE-SKETCH-II] Notes)
- Any necessary geometric (e.g. area, volume, …) or physics results (e.g. Hooke's Law) will be provided.
- Regarding Horizontal & Vertical Asymptotes, if you can "eyeball them", that's fine – no work needed.
- There will NOT be a full-blown "Curve Sketching" problem, but expect a few parts of one.
- Expect one Optimization problem similar to one of the Sec4.6 HW questions (on WebWorK).

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.
- Print your name at the top-right corner of exam. Print your initials at top-right of subsequent pages.
- There will be a proctor (in addition to me).

ADVICE:

- Don't be late to the exam.
- Review past homework, and perhaps even work some similar problems in the textbook.
- Review Chapter 4 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 (11/07).
- SHOW APPROPRIATE WORK! Attempt bonus questions.