

Mid-Term Exam Topics

Walking into the test on Wednesday, November 15th, you should have a understanding of the following concepts:

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| <ol style="list-style-type: none"> 1. Limit Definition of Derivative 2. Basic Derivative and Integral Rules 3. Product Rule 4. Quotient Rule 5. Derivatives using tables and graphs 6. Reverse Power Rule 7. Exponential Integrals 8. Linear Fraction Integrals 9. Separation of Variables – INITIAL CONDITION 10. Slope Fields – INITIAL CONDITION 11. Intervals of increasing and decreasing 12. Concavity 13. Critical Points and Points of Inflection 14. Approximations (using the tangent line – NO TAYLOR POLYNOMIALS) 15. PVA – INITIAL CONDITION 16. Curve Sketching | <ol style="list-style-type: none"> 1. Chapter 2 Homework 2. Chapter 3 and 4 Homework 3. Section 3.5 4. Section 3.6 5. Section 3.8 6. Section 4.1 7. Section 4.1 and CLASSWORK (Hank Schrader) 8. CLASSWORK (Hank Schrader) + Partial Fraction HW 9. iMPACTful HW and Videos + FRQS 10. iMPACTful HW and Videos + FRQS 11. Notes + iMPACTFUL HW 12. Notes + iMPACTFUL HW 13. Notes + iMPACTFUL HW 14. Sections 2.4, 3.4, 4.2 + iMPACTFUL HW 15. Sections 2.5, 3.4, 4.2 + iMPACTFUL HW 16. IMPACT Week Notes |
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ADDITIONAL RESOURCES LIST (click):

-Flipped Math (Algebros):

- [Flipped Math Calculus for Product and Quotient Rule Solutions\(+other sections\): Flipped Math Solutions](#)
- [Slope Fields](#)
- [Separation of Variables](#)
- [Linear Partial Fractions Integrals](#)

-Math and Physics Tutors:

- [Derivatives from Charts](#)

-The Algebros:

- [Approximations and Over/Under Approx](#)
- [GREAT EXPLANATION OF LINEAR APPROXIMATIONS IF YOU'RE CONFUSED](#)

-Paul's Online Notes: [Great Place for Practice Problems](#)

- [Critical Points w/ Solutions](#)
- [Interval Inc/Dec and Relative Maxima](#)

-The Organic Chemistry Tutor:

- [Integration on Exam](#)
- [Interval of Inc/Dec](#) On the exam I will ask for the OPEN interval in order to be consistent everywhere.
- [Relative Maxima – First Derivative Test](#)
- [Concavity and Points of Inflections](#)

-Professor Leonard:

- [Interval of Inc/Dec](#) On the exam I will ask for the OPEN interval in order to be consistent everywhere.

-SimpLEEfied

- [PVA](#)

-My Secret Math Tutor

- [PVA – NO DISTANCE OR DISPLACEMENT ON THE EXAM; WE WILL COVER SOON](#)