

MATH 190, Lab 7: Oct 23 and 25, 2018

The midterm for MATH 190 will be on next Monday in class. In this week's lab, you are going to practice a sample midterm from last year.

Part I. (Individually)

Below, you can find the list of topics covered in the midterm. Go over the list and identify the topics for which you feel you need more time and practice for the exam preparation.

Topics:

- Review of functions (linear, quadratic, exponential, logarithmic and trigonometric functions.)
- Definition of the limit and how to find the limit of a function with algebraic methods or from the graph of a function.
- Vertical and horizontal asymptotes of a function by algebraic computations or by graphical interpretation of the function.
- The slope of the tangent line and its limit definition, its relationship with the secant line and how to interpret the limit definition graphically.
- The meaning of the derivative of a function, its limit definition and how to use the limit definition to find the derivative of a given function.
- The equation of the tangent line to a function f at a given point.
- The relationship between f and f' and how to use it to graph f or f' .
- The derivative rules (power, exponential, trig and log functions, also, the product, quotient and chain rule.)

Part II.

1. Now read each question on the 2017 MATH 190 midterm exam and without solving them, match each question with the topic(s) listed above. Then discuss them in your group and check if you all agree on the topic(s) targeted by each question.
2. Once you matched all the problems on the exam with the topics, work on writing a complete solution for them. You may start with the questions targeting the challenging topics you identified in Part I.