

Checklist

MATH 151 – SPRING 2019

Exam 2

Exam 2 will cover sections 1.7 – 3.4 in the text, you are responsible for

1. All material covered in class including examples posted on the course website for each section
2. Examples from the course text.
3. Practice problems posted on the course website

Expectations

For exam 2, I expect you to be able to:

1. Understand the use of exponential functions in applications (e.g. interest accounts, population growth)
2. Understand the concept of Average velocity and Instantaneous velocity
3. Interpret the derivative of a function at a point as the slope of the tangent line at that point.
4. Interpret the meaning of the derivative for applications (including units)
5. Use the derivative to approximate function values near tangent line - $f(x) \approx f(a) + f'(a)(x - a)$
6. Compute the Relative rate of change
7. Understand the interaction between cost and revenue function in relation to profit.
8. Be able to derive the revenue function given the demand function.
9. Understand that Marginal cost, revenue, profit are the derivative functions of these quantities
10. Use the derivative to determine if it makes sense to increase production
11. Approximate the derivative from a table of data values
12. Be able to use the derivative rules to find the derivative of $y = f(x)$.