

## Appendix A: Final Brief Study Guide

This is my “virtual highlighting” of the textbook: a list by section of the worked Examples in the textbook that are of types likely to be seen on the common final exam for Math 120, based on recent common final exams, plus a few other facts that should be known, such as some definitions, formulas, and theorems where it is particularly important to know the details in order to use them. Note that Chapter 1 is not directly examined.

- 2.1 Examples 1 and 3.
- 2.2 None of these examples will be done this way on the exam, since we have learnt in later sections easier ways to deal with such questions.
- 2.3 All Examples 1-11 and all the Limit Laws (on pages 102, 103, 104, 105).
- 2.4 Definition 2 (p. 113), the precise definition of a limit, and Examples 1, 2 and 4.
- 2.5 Examples 1-5 and 9, and the basic facts about continuity in the theorems.
- 2.6 Examples 1-4, 6-11.
- 2.7 Definition 1, p. 148 of the Tangent Line and Examples 1-4.
- 2.8 Definition 2 p. 156 of the Derivative and Examples 1, 3, 4, and 6.
- 2.9 Examples 1, 3(a), 4 and 5 and Theorem 4 p. 169
- 3.1 All the Derivative rules, all Examples.
- 3.2 The Product and Quotient Rules, and Examples 2-6.
- 3.3 Example 1.
- 3.4 Examples 1-3.
- 3.5 The Chain Rule and all Examples, 1-9. Note Examples 7 and 9 in particular.
- 3.6 Examples 1, 2 and 3.
- 3.7 Examples 1 and 2.
- 3.8 All Examples, in particular those involving logarithmic differentiation. Learn when this applies, as exam questions will not necessarily tell you to use logarithmic differentiation.
- 3.10 All Examples, 1-5.
- 3.11 Examples 2, 4 and 5.
- 4.1 Examples 1-8.
- 4.2 The Mean Value Theorem and Examples 2 and 3.
- 4.3 Examples 1-3, 5-8.
- 4.4 Examples 1-5.

4.5 Examples 1-5. (Note: *slant asymptotes* were not covered.)

4.7 All Examples, 1-5.

4.10 Examples 1-4, 7 and 8.

5.1 Examples 3, 4.

5.2 Examples 2, 4, 5, 7.

5.3 The Fundamental Theorem of Calculus, Parts 1 and 2, and Examples 1, 3, 4-7.

5.4 All the indefinite integrals in the table on page 402 (see Appendix 3) and Examples 1, 3, 4, 5, and 6.

5.5 The Substitution Rule, including the version for Definite Integrals, and Examples 1-9.