

Mathematics 1120H – Calculus II: Integrals and Series

TRENT UNIVERSITY, Winter 2024

Some Suggested Homework Exercises

The following is a list of exercises from the text book, *Single Variable Calculus* (Early Transcendentals) by David Guichard, that you should take a look at and figure out how to do as we go through the material. These are for practice and should not be submitted, but feel free to ask about them in class or office hours. Most of these also have answers in the back of the textbook.

It's a relatively minimal set of problems, so feel free to do more problems of a similar nature from the textbook, other first-year textbooks, and other sources. Ideally, the material in Chapter 7 and in Sections 8.1 and 8.4 should have been covered in MATH 1110H. Please review it, since we'll be going over it – and then using it – again anyway. Also, please note that we plan to do the improper integral part of Section 9.7 before the rest of Chapter 9. Some other material may also get rearranged as reality bites ...

Chapter 7

§7.1 Exercises 3, 6, 7

§7.2 Exercises 1, 2, 3, 5, 7, 10, 11, 12, 14, 15, 18, 19, 22

§7.3 Exercises 1, 3, 4, 6

Chapter 8

§8.1 Exercises 1, 3, 4, 5, 7, 8, 10, 11, 13, 15, 16, 20

§8.2 Exercises 2, 3, 4, 6, 7, 9, 10

§8.3 Exercises 2, 3, 4, 5, 6, 7, 8, 9, 11

§8.4 Exercises 1, 2, 3, 5, 6, 7, 8, 10, 12, 14

§8.5 Exercises 1, 3, 4, 6, 7, 8, 10

§8.6 Exercises 1, 4, 10, 11

§8.7 Exercises 2, 3, 4, 5, 7, 10, 11, 12, 13, 15, 17, 18, 20, 22, 23, 24, 26, 28

Chapter 9

§9.7 Exercises 1, 2, 4, 5, 6, 7, 8

§9.1 Exercises 1, 2, 5, 8, 9, 11

§9.2 Exercises 2, 4, 5, 10

§9.3 Exercises 5, 6, 7, 8, 9, 10, 11, 12, 13, and §9.7 Exercise 13

§9.4 Exercises 1, 2, 4, 5

§9.5 Exercises 1, 2, 3, 5, 8

§9.6 Exercises 1, 5, 6, 8, 10

§9.9 Exercises 1, 4, 5, 8, 9

§9.10 Exercises 2, 3, 5, 6, 7, 8

Chapter 11

§11.1 Exercises 1, 2, 3, 4, 6

§11.2 Exercises 1, 3, 4, 6, 9

§11.3 Exercises 1, 2, 3, 4, 6, 8, 11

§11.4 Exercises 1, 3, 4, 5

§11.5 Exercises 2, 4, 6, 8, 9

§11.6 Exercises 1, 3, 4, 6, 7, 8

§11.7 Exercises 1, 2, 3, 4, 5, 6, 8

§11.8 Exercises 1, 2, 3, 4, 5, 6

§11.9 Exercises 1, 2, 4, 5

§11.10 Exercises 1, 2, 3, 4, 7, 9, 10

§11.11 Exercises 1, 2, 3, 4, 5

§11.12 Exercises 2, 3, 4, 7, 9, 13, 14, 17, 19, 20, 21, 24, 25, 27, 29, 30, 31 [the constant is π]

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