MATH 2050B Mathematical Analysis I
2023-24 Term 1
Problem Set 4
due on Oct 6, 2023 (Friday) at 11:59PM

Instructions: You are allowed to discuss with your classmates or seek help from the TAs but you are required to write/type up your own solutions. Please do NOT come to campus to submit your completed assignments. Instead, you can either type up your assignment or scan a copy of your written assignment into ONE PDF file and submit through Gradescope on/before the due date. Please remember to write down your name and student ID. **No late homework will be accepted.** All the exercises below are taken from the textbook.

Required Readings: Chapter 3.1

Optional Readings: none

Problems to hand in

Section 3.1: Exercise # 5(a)(c), 6(b)(d), 14, 15, 18

Suggested Exercises

Section 3.1: Exercise # 3, 4, 5(a)(c), 6(b)(d), 7, 8, 9, 10, 11, 12, 13

Challenging Exercises (optional)

1. Section 3.1: Exercise # 16, 17

2. Is the sequence $(\sqrt{n^2 + n} - n)$ convergent? If so, find the limit.