

## MAT 127: Calculus C, Spring 2022 Homework Assignment 9

**WebAssign Problems due before 9am, Wednesday, 04/13**

20% bonus for submissions **before 9am, Saturday, 04/09**

**Written Assignment due before 4pm, Wednesday, 04/13**

in your instructor's office (L01 in Math 4-101B, L02/3 in Math 3-111)

Please read Section 5.5.3 thoroughly before starting on the problem set; looking over Section 8.4 of the WebAssign textbook may be helpful too.

**Written Assignment:** Problems IX.1,2 (below)

*Show your work; correct answers without explanation will receive no credit, unless noted otherwise.*

*Please write your solutions legibly; the graders will disregard solutions that are not readily readable. All solutions must be stapled (no paper clips) and have your name (first name first), lecture number (L01, L02, or L03), and HW number in the upper-right corner of the first page.*

### Problem IX.1

Determine whether the series  $\sum_{n=1}^{\infty} (-1)^n \frac{n}{\sqrt{n^3 + 2}}$  converges or diverges.

### Problem IX.2

Approximate the sum of the series  $\sum_{n=1}^{\infty} \frac{(-1)^n}{3^n n!}$  correct to four decimal places.