## Mathematics u11601 (C Programming) Michaelmas 2021

October 12, 2021

## Third assignment, due 12 noon, Wednesday 20/10/21

Please excuse the severity of the next two paragraphs.

**Plagiarism.** These assignments are meant to be quite easy, at least to begin with. You will not copy another student's assignment. If copying is detected, all students involved will lose marks, irrespective of who copied from whom.

**Read this carefully.** You should form the habit of reading specifications carefully, and following them.

The assignment is to write a C program, check that it works, and submit the C program.

**Program:** To read double-precision numbers off the command line, and print the count (argc-1), the maximum, and the minimum.

This is straightforward except for finding the maximum and minimum. To find the maximum in a list of numbers, initialise a variable,  $\mathbf{x}$ , say, to equal any number in the list, then iterate through the list, and whenever a number  $\mathbf{y}$  is bigger than  $\mathbf{x}$ , replace  $\mathbf{x}$  by  $\mathbf{y}$ .

The problem is undefined if the list is empty! You may assume that  $argc \geq 2$ . For example:

% a.out 3 1 4 1 5 9 2 6 5 9 numbers, max 9.000000, min 1.000000

Edit, compile, and run your program to make sure it works. When it works correctly, submit it. Submit it using submit-work, which runs on hamilton and synge and probably on other maths machines.

## Points to note.

The same remarks hold as in the previous assignments. However, since the data in this assignment is on the command line, there is no need to comment about interactive input/output. The main point is to work with command-line arguments.