# MTH 4300/4299: Algorithms, Computers, and Programming II

## HW #1

## Due Date: September 14th, 2025

## Instructions

You will need to submit two files to brightspace, a screenshot and a cpp file named: name_hw1.cpp.

For the cpp file, each problem below(2-4) should be written as a function, that is called in your main function.

## 1

Submit a screenshot of you compiling and running any of the problems below on your local computer(2-4)

## 2

Write code that calculates max{a,b} and stores the result in the variable m.

## 3

Write a code that checks whether the real number x belongs to the union of the open intervals (5 - 15)U(95 - 202). If it does, the program should print yes. If it does not, the program should print no.

## 4

Assume that the user is asked to provide an integer x through the standard input. The program will check whether x is bigger than 100. If it is, then the program will print: "Congratulations! You know about big numbers!" and the program will then exit. If x is not bigger than 100, then the program will print:"Try again with a bigger number:" and then the user should be prompted to enter another number. The program can only end once the user has entered a number larger than 100, and should repeatedly prompt the user to enter another number if the number provided is smaller than 100.