

# Assignment Week 5

CT103

C Programming

## Submission:

Zip your C files into one .zip file for submission on Blackboard

Submit before you leave the lab (*even if you don't get it fully working!*)

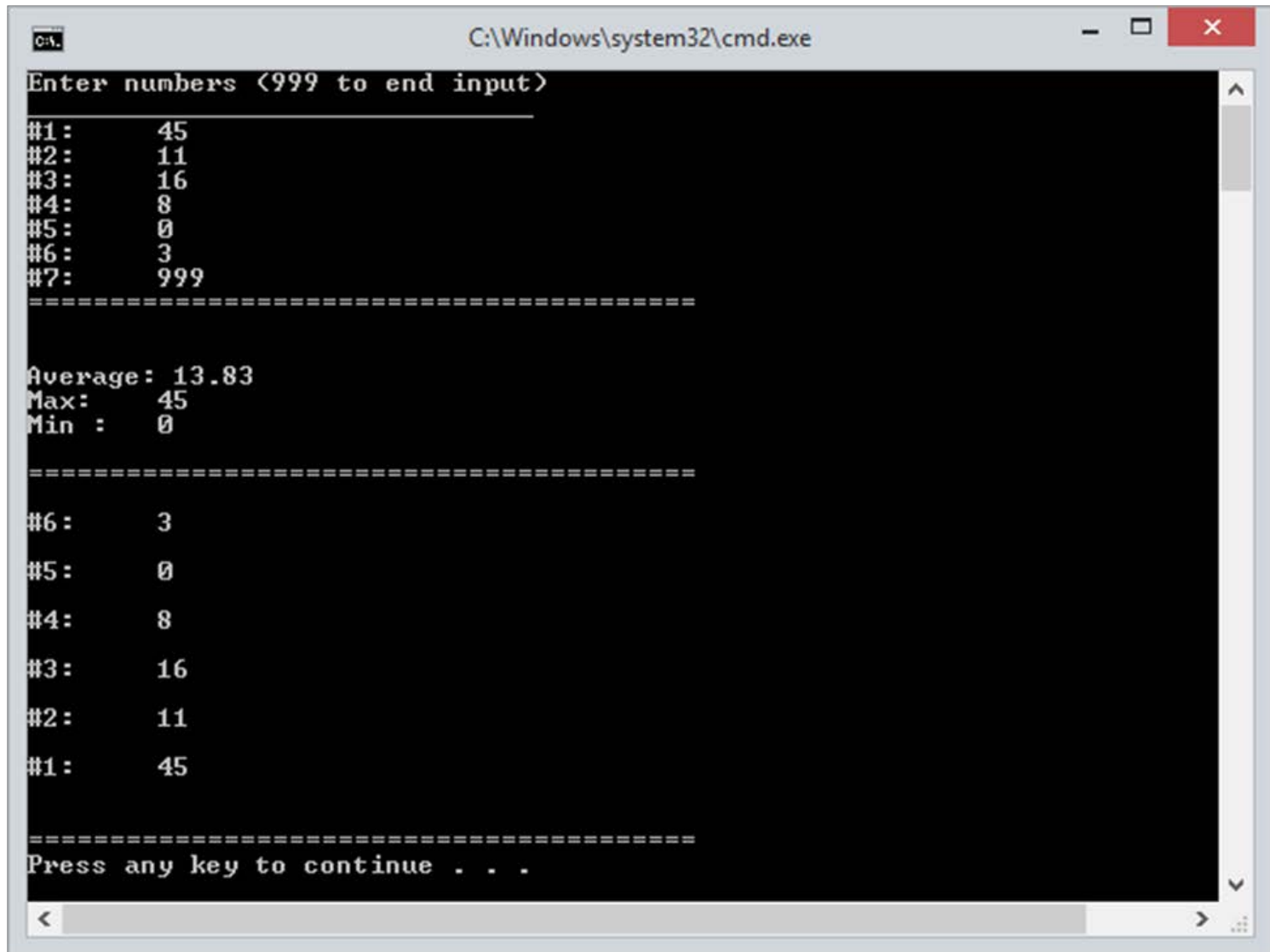
You must be marked present by the lab tutor, and they must see your finished program before you leave

*The tutors are there to help you - don't hesitate to ask for help*

# Part 1

- *Write a program that allows the user to enter a list of integers*
- *The integers must be stored in an array*
- *The size of the array is 30*
- *To stop inputting integers, the user enters the value 999 (do not store this)*
- *The user cannot enter more than 30 integers*
- *The program calculates the average of the numbers input, and prints it out to 2 decimal places*
- *The program also prints out the Maximum and Minimum values input by the user*
- *Finally, the program prints out the list of numbers input backwards*
- *Hints:*
  - *1. Remember the **break;** statement to get out of a for loop*
  - *2. To avoid truncating the result of integer division, convert them to doubles first, like so:*
    - ***result = (double) i / (double) j;***
    - *Where **result** is a double, and **i** and **j** are integers*
    - *This kind of conversion is called CASTING*

# Sample Input / Output



A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window displays the following text:

```
Enter numbers <999 to end input>
#1:      45
#2:      11
#3:      16
#4:       8
#5:       0
#6:       3
#7:     999
=====

Average: 13.83
Max:     45
Min :    0
=====

#6:       3
#5:       0
#4:       8
#3:      16
#2:      11
#1:      45
=====

Press any key to continue . . .
```

The output shows the calculation of the average (13.83), maximum (45), and minimum (0) of the input numbers. The input numbers are listed in reverse order from #6 to #1. The program ends with a prompt to press any key to continue.