

Lab 1 Pseudo Code

Mean

Set "i" as pointer and for loop variable

Add Array Position [i] to total

Increment i and repeat 21 times

Divide total by 21

Return value

Range

Set first array position as both max and min

Set "c" as pointer and for loop variable

Extract Array value at position "c"

Test if it's greater or less than the max and min, respectively

If so, replace corresponding value with the new max/min

Increment "c"

Repeat 20 times

Return max and min values

Non-Increasing Monotonic Series

Set "f" as pointer and for loop variable

Load array value [f] and [f++] into respective variables

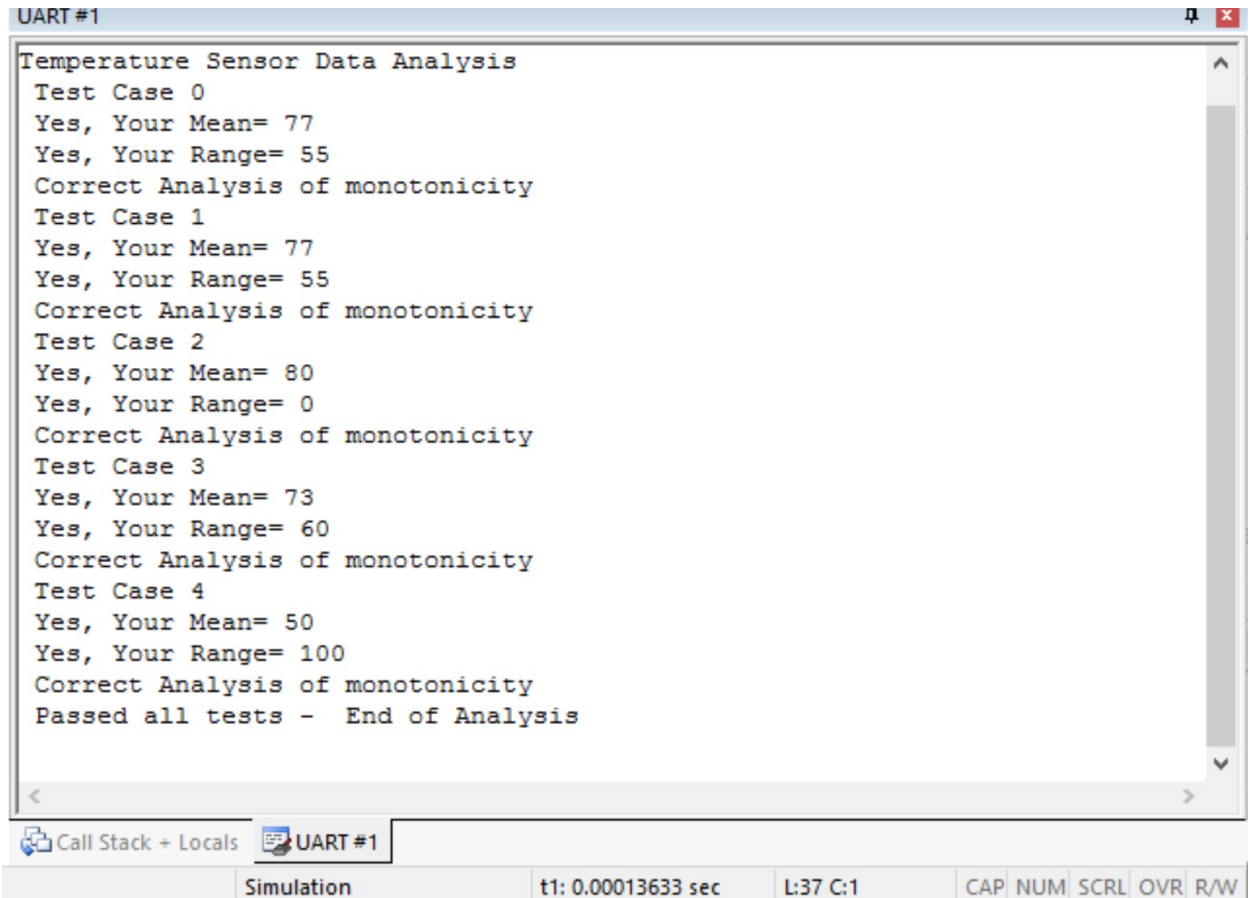
Check if f++ > f

 If so, return false

Repeat 20 times

Return true if it exits the for loop successfully

Successful Testing Screenshot



The screenshot shows a UART #1 window with a text area containing the following output:

```
Temperature Sensor Data Analysis
Test Case 0
Yes, Your Mean= 77
Yes, Your Range= 55
Correct Analysis of monotonicity
Test Case 1
Yes, Your Mean= 77
Yes, Your Range= 55
Correct Analysis of monotonicity
Test Case 2
Yes, Your Mean= 80
Yes, Your Range= 0
Correct Analysis of monotonicity
Test Case 3
Yes, Your Mean= 73
Yes, Your Range= 60
Correct Analysis of monotonicity
Test Case 4
Yes, Your Mean= 50
Yes, Your Range= 100
Correct Analysis of monotonicity
Passed all tests - End of Analysis
```

Below the text area is a toolbar with a 'Call Stack + Locals' button and a 'UART #1' tab. At the bottom, a status bar displays 'Simulation', 't1: 0.00013633 sec', 'L:37 C:1', and a table with headers 'CAP', 'NUM', 'SCRL', 'OVR', and 'R/W'.

CAP	NUM	SCRL	OVR	R/W