

# Python Programming

## While Loops Homework 1

**Mostafa S. Ibrahim**

*Teaching, Training and Coaching since more than a decade!*

*Artificial Intelligence & Computer Vision Researcher*

*PhD from Simon Fraser University - Canada*

*Bachelor / Msc from Cairo University - Egypt*

*Ex-(Software Engineer / ICPC World Finalist)*



# Homework 1: Print Range

- Given a starting integer X and an ending integer Y, print all integers between X and Y inclusive, each on a line.
- Input 3 7
- Output
  - 3
  - 4
  - 5
  - 6
  - 7

# Homework 2: Repeat Me

- Read integer N and string S.
- Print S repeated N times as below
- Input: 5 Hi
- Output: HiHiHiHiHi
- Note: we can use string \* 5
  - Please use while loops

# Homework 3: Print face down left angled triangle

- Read integer N.
- Print a face down left angled triangle that has N rows as in picture

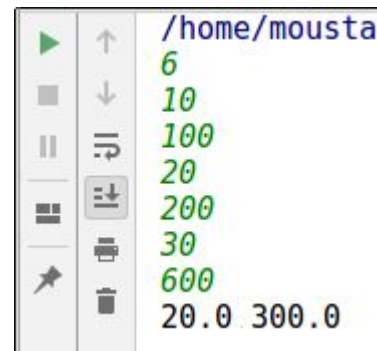


```
/home/  
5  
*****  
****  
***  
**  
*
```

A terminal window with a toolbar on the left. The toolbar contains icons for running, stepping through, pausing, and other debugging actions. The terminal output shows the prompt `/home/`, the input `5`, and a face down left angled triangle of asterisks with 5 rows.

# Homework 4: Special Average

- Read integer N, followed by reading N **numbers**
  - Each on **separate lines**
- Print 2 values
  - The average of the numbers in odd positions (1st, 3rd, 5th, ...)
  - The average of the numbers in even positions (2nd, 4th, 6th, ...)
- Explantation
  - $(10+20+30)/3 = 20$
  - $(100+200+600)/3 = 300$



A terminal window with a light gray background. The title bar shows the path `/home/mousta`. The terminal contains the following output: `6`, `10`, `100`, `20`, `200`, `30`, `600`, `20.0`, and `300.0`. The numbers 6, 10, 100, 20, 200, 30, and 600 are in green, while 20.0 and 300.0 are in black. To the left of the output is a vertical toolbar with icons for running, stepping, pausing, and other debugging actions.

```
/home/mousta
6
10
100
20
200
30
600
20.0 300.0
```

*“Acquire knowledge and impart it to the people.”*

*“Seek knowledge from the Cradle to the Grave.”*