

Python Programming

While Loops Homework 3

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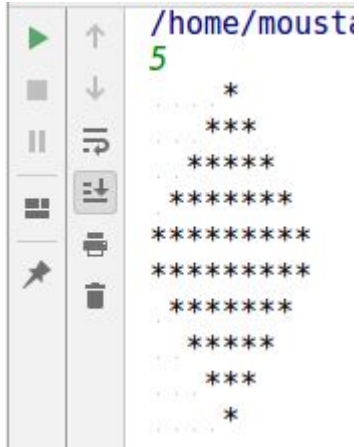
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Homework 1: Print Diamond

- Read an integer N. Print diamond of 2N rows as below.



The screenshot shows a code editor with a file path `/home/moustafa` and a variable `5` assigned to a variable. The code prints a diamond pattern of asterisks. The pattern consists of 10 rows (2N rows where N=5). The first 5 rows are the upper half, and the next 5 rows are the lower half. The number of asterisks in each row increases from 1 to 5 and then decreases back to 1. The asterisks are centered by using spaces.

```
1 //home/moustafa
2 5
3      *
4     ***
5    *****
6   *********
7  *********
8  *********
9   *****
10  ***
11      *
```

Homework 2: Special multiples 1

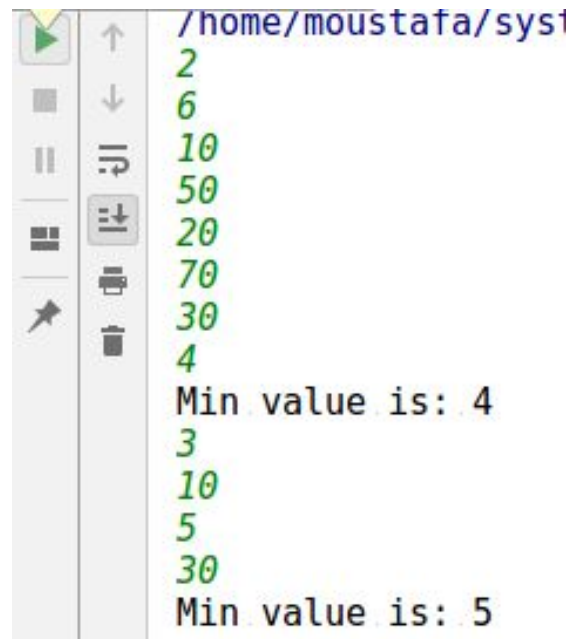
- Read an integer N : print all numbers $\leq N$ that satisfy the following property
 - Either number is divisible by 8
 - Or divisible by both 4 and 3
- Input: 100
- Output: 0 8 12 16 24 32 36 40 48 56 60 64 72 80 84 88 96

Homework 3: Special multiples 2

- Read an integer N ($1 \leq 30$): Print the first N numbers that are
 - multiple of 3 but not multiple of 4
- Input: 11
- Output: 3 6 9 15 18 21 27 30 33 39 42
- Notice
 - 12 is divisible by both 3 and 4 \Rightarrow so excluded

Homework 4: Minimum of values

- Read T for number of test cases.
- For each test case read integer N: For number of integers to read
- Then read N integers, each on a separate line
- For each test case, print the minimum of the N integers.
- See picture
 - 2 for 2 test cases
 - The length of the first is 6
 - And the length of the second is 3



```
/home/moustafa/syst
2
6
10
50
20
70
30
4
Min value is: 4
3
10
5
30
Min value is: 5
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”