

## Python Lab (2)

- 1) Please write a function named `triangle`, which draws a triangle of hashes, and takes one argument. The triangle should be as tall and as wide as the value of the argument.

**Some examples:**

`triangle(6)`

`triangle(3)`

```
#  
##  
###  
####  
#####  
#####
```

```
#  
##  
###
```

- 2) Please write a function named `greatest_number`, which takes three arguments. The function returns the greatest in value of the three.

**[without using max function, and solve it in two ways]**

```
print(greatest_number(3, 4, 1)) # 4  
print(greatest_number(99, -4, 7)) # 99  
print(greatest_number(0, 0, 0)) # 0
```

- 3) Write a function `sum_series(n)` that calculates the sum of the series:  
 $1 - 2 + 3 - 4 + 5 - \dots$  up to  $n$
- 4) Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.
- 5) Implement a function that checks if a given word is a palindrome (reads the same forwards and backwards)