

Homework 1

Please **write a python method** for each question and submit your solutions to SUCourse+ before due date.

Submission Rules;

- You should create only **one file** for all questions
- You should write your solutions **into separate cells**.
- Your file name should contain your name and last name.

E.g.

AhmetDemirelliHomework1.ipynb

- You should not use Turkish characters in your **file names** or **variable names**
- You should write a comment before each method that shows the question number.

E.g.

#Question 3

def checkLetter (letter):

.....

1. **Write a method that prints following text.**

**** I promise that I will do this homework all my own.***

no input

no output

2. **Write a method that calculates and returns the volume of a cylinder with given radius and height;**

2 inputs

1 output

3. **Write a method that takes one word and one letter as input and returns True if the word contains the letter. (please do not use contains method of string)**

2 inputs

1 output

Sample usage with given word "Sabanci University" and given letter "a" ;

checkLetter ("Sabanci University" , "a") → returns True

Sample usage with given word "Sabanci University" and given letter "x" ;

checkLetter ("Sabanci University" , "x") → returns False

4. **Write a method that takes a number "n" returns the multiplication of numbers 1 to n**

1 input

1 output

Sample usage with given number 10:

total = factorial (10)

print (total)

It should print ; 3628800

5. **Write a method that calculates and returns the distance between x1, y1 coordinates and x2, y2 coordinates**

4 inputs

1 output

E.g.:

x1, y1 → 1, 1

x2, y2 → 4, 5

method should return → 5

6. **Write a method that returns the shortest word in a given sentence.**

1 input

1 output

input → “Siz bizim Çekoslovakyalılaştıramadıklarımızdan mısınız?”

output → “Siz”

7. **Write a method that takes an array and a number and returns a new array with elements equal or greater than given number.**

2 inputs

1 output

E.g.:

given array -> [23, 33, 12, 43, 56, 32, 45, 67, 78, 90, 35]

given number -> 35

result array should be -> [43,56,45,67,78,90,35]

8. **Write a method that takes an int array and an int value and returns count of the given number in the array;**

2 inputs

1 output

E.g.:

int array -> [33, 21, 99, 1, 33, 57, 32, 123, 55, 33, 70, 33]

given number -> 33

result should be -> 4