Homework 1

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

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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):
  ……

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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 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

4. **Write a method that returns the shortest word in a given sentence.**
   1 input
   1 output

   intput → [‘Elma’, ‘Armut’,’Portakal’,’Muz’,’Mandalina’,’Greyfurt’,’Nar’]
   output → “’Mandalina’”
   Hint: You can check size of a string with len( ) method.

5. **Write a method that takes a list and a number and returns a new list with elements equal or greater than given number.**
   2 inputs
   1 output

E.g.:
   given list -> [23, 33, 12, 43, 56, 32, 45, 67, 78, 90, 35]
   given number -> 35
   result list should be -> [43,56,45,67,78,90,35]

6. **Write a method that takes an int list and an int value and returns count of the given number in the list;**
   2 inputs
   1 output

E.g.:
   int list -> [33, 21, 99, 1, 33, 57, 32, 123, 55, 33, 70, 33]
   given number -> 33
   result should be -> 4

7. **Write a method that takes 2 lists and puts them into same list as shown below;**
   2 inputs
   1 output

E.g.:
   List1 -> [“a”, ”a”, ”a”, ”a”, ”a”, ”a”]
   List2 -> [“b”, ”b”, ”b”, ”b”, ”b”, ”b”]
   result should be -> [“a”, “b”, ”a”, “b”, ”a”, “b”, ”a”, “b”, ”a”, “b”, ”a”, “b”]

8. **Write a method that takes a list and returns the reversed version of list;**
   1 input
   1 output

E.g.:
   int list -> [1, 2, 3, 4, 5, 6, 7]
   result should be -> [7, 6, 5, 4, 3, 2, 1]

9. **Write a method that takes 2 lists and returns the elements that are in both lists ;**
   2 inputs
   1 output

E.g.:
   int list -> [1, 2, 3, 4, 5, 6, 7]
   int list -> [6, 2, 5, 9, 8, 6, 6]

   result should be -> [6, 2, 5]

10. **Write a method that takes a list and returns randomly shuffled version of list ; It should return different result for each run.**
    1 inputs
    1 output

E.g.:
   int list -> [1, 2, 3, 4, 5, 6, 7]
   result can be -> [7, 1, 5, 3, 6, 2, 4] or [4, 1, 3, 5, 6, 2, 7] or [1, 2, 5, 3, 6, 7, 4] …etc