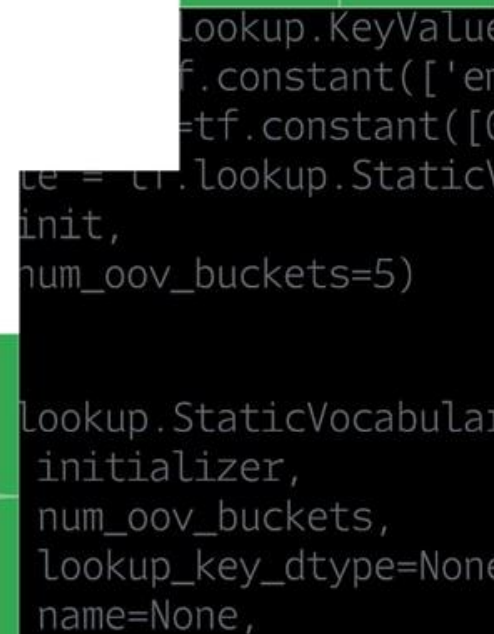
ASSIGNMENT (5)

Function & String

Grade: 100 Point

Deadline: 29/1/2025 - 12:00AM

Class Room Link



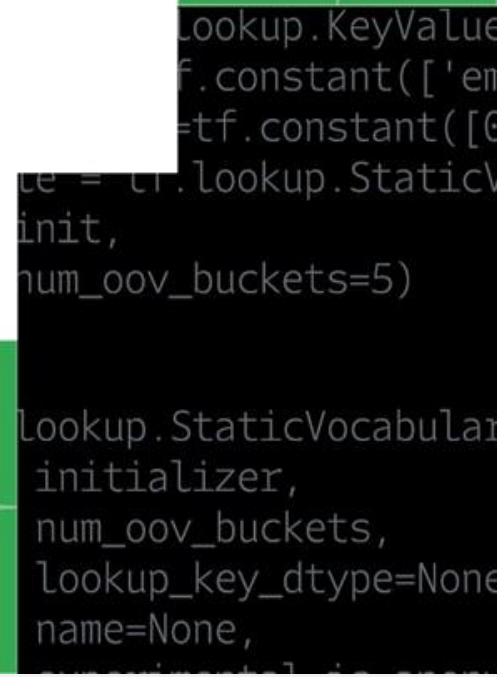
Name:

E-Mail:

ID:

Note:

If you do not have an ID yet, please leave it blank and we will contact you to provide your ID.



Question One [5 point]

Given two numbers *X* and *Y*, Print their summation.
Note: Solve this problem using function.

Input
Only one line contains two numbers *X* and *Y* ($0 \le X, Y \le 10^5$).

Output
Print the summation value.

Example

input	Copy
5 2	
output	**Copy**
7	

Question Two [15 point]

A prime number is a number that is greater than 1 and has only two factors which are 1 and itself. The first few prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29.

Given a number *N*. Determine whether *N* is prime or not.

Note: Solve this problem using function.

Print "YES" if the N_{th} number is prime otherwise, print "NO".

Example

input	Copy
3 2 4 8	
output	**Copy**
YES NO NO	

Question Three [10 point]

Given an array *A* of size *N*. Print the minimum and the maximum number in the array.

Note: Solve this problem using function.

Input

First line will contain a number N ($1 \le N \le 10^3$) number of elements.

Second line will contain N numbers ($0 \le X_i \le 10^5$).

Output

Print the minimum and the maximum number separated by a space.

Example

input	Copy
5 10 13 95 1 3	
output	**Copy**
1 95	

Question Four [10 point]

Given a number N and a character C. Print the character(C) N times.

Note: Solve this problem using function.

Output

Print T lines, for every line print the character(C) N times separated by space.

Example

input	Copy
2 1 n 5 0	

output	Copy
n 0 0 0 0 0	

Question Five [10 point]

Given two numbers *X* and *N*. Print the result of the following equation:

$S = (X^0 - 1) + (X^2) + (X^4) + (X^6) + \ldots\ldots\ldots\ldots + (X^N)$

Note: Solve this problem using function and don't use built-in function.

Input

Only one line contains two numbers *X* and *N* ($0 \le X, N \le 10$)

Output

Print the equation result *S*

Example

input	Copy
5 5	
output	Copy
650	

First Test :

$(5^0 - 1) + 5^2 + 5^4 = 0 + 25 + 625 = 650.$

Question Six [10 point]

Given an array A of size N. Print the average(mean) of the array numbers.

Note: Solve this problem using function.

Input

First line will contain a number N (1≤N≤104) length of the array.

Second line will contain N numbers (1≤Ai≤103).

Output

Print the average(mean) of the array with 6 digits after the decimal point.

Example

input	Copy
3 1.0 2.0 5.0	
output	**Copy**
2.6666667	