

Hexaware Coding Challenge Plan Day - 8

Problem - 1 Iterables and Iterators

HackerRank Prepare > Python > Itertools > Maximize It! Exit Full Screen View

Problem

You are given a function $f(X) = X^2$. You are also given K lists. The i^{th} list consists of N_i elements.

You have to pick one element from each list so that the value from the equation below is maximized:

$$S = (f(X_1) + f(X_2) + \dots + f(X_K)) \% M$$

X_i denotes the element picked from the i^{th} list. Find the maximized value S_{max} obtained.

$\%$ denotes the modulo operator.

Note that you need to take exactly one element from each list, not necessarily the largest element. You add the squares of the chosen elements and perform the modulo operation. The maximum value that you can obtain, will be the answer to the problem.

Input Format

The first line contains 2 space separated integers K and M .

The next K lines each contains an integer N_i , denoting the number of elements in the i^{th} list, followed by N_i space separated integers denoting the elements in the list.

Constraints

- $1 \leq K \leq 7$
- $1 \leq M \leq 1000$
- $1 \leq N_i \leq 7$
- $1 \leq M$ and the number of elements in list $\leq 10^9$

Submissions

Leaderboard

Discussions

Success

You have earned 50.00 points!
37/115 challenges solved. 32%

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#) [Next Challenge](#)

Test case 0 [🔒](#)

Test case 1 [🔒](#)

Test case 2 [🔒](#)

Test case 3 [🔒](#)

Test case 4 [🔒](#)

Test case 5 [🔒](#)

Test case 6 [🔒](#)

Compiler Message

Success

Hidden Test Case

Unlock this testcase for 5 hacks.

Unlock

Problem - 2 Built-Ins

HackerRank Prepare > Python > Built-Ins > Zipped! Exit Full Screen View

Problem

Task

The National University conducts an examination of N students in X subjects. Your task is to compute the average scores of each student.

$$\text{Average score} = \frac{\text{Sum of scores obtained in all subjects by a student}}{\text{Total number of subjects}}$$

The format for the general mark sheet is:

Student ID	1	2	3	4	5
Subject 1	89	90	78	93	80
Subject 2	90	91	85	88	86
Subject 3	91	92	83	89	90.5
Average	90	91	82	90	85.5

Input Format

The first line contains N and X separated by a space.

The next X lines contains the space separated marks obtained by students in a particular subject.

Constraints

- $0 < N \leq 100$
- $0 < X \leq 100$

Output Format

Submissions

Leaderboard

Discussions

Success

You have earned 10.00 points!
38/115 challenges solved. 33%

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#) [Next Challenge](#)

Test case 0 [🔒](#)

Test case 1 [🔒](#)

Test case 2 [🔒](#)

Test case 3 [🔒](#)

Test case 4 [🔒](#)

Test case 5 [🔒](#)

Input (stdin) [Download](#)

```
1 5 3
2 89 90 78 93 80
3 90 91 85 88 86
4 91 92 83 89 90.5
```

Expected Output [Download](#)

```
1 90.0
2 91.0
3 82.0
4 90.0
```

Problem - 3 Built-Ins

HackerRank

Prepare > Python > Built-ins > Athlete Sort

Exit Full Screen View

Problem

You are given a spreadsheet that contains a list of N athletes and their details (such as age, height, weight and so on). You are required to sort the data based on the K^{th} attribute and print the final resulting table. Follow the example given below for better understanding.

Rank	Age	Height (in cm)	Rank	Age	Height (in cm)
1	32	190	5	24	176
2	35	175	4	26	195
3	41	188	1	32	190
4	26	195	2	35	175
5	24	176	3	41	188

Note that K is indexed from 0 to $M - 1$, where M is the number of attributes.

Note: If two attributes are the same for different rows, for example, if two athletes are of the same age, print the row that appeared first in the input.

Input Format

The first line contains N and M separated by a space.
The next N lines each contain M elements.
The last line contains K .

Constraints

$1 \leq N, M \leq 1000$
 $0 \leq K < M$

Submissions

Leaderboard

Discussions

You have earned 30.00 points!
39/115 challenges solved.

34%

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

[Next Challenge](#)

Test case 0 [Success](#)

Test case 1 [Success](#)

Input (stdin)

```
1 5 3
2 10 2 5
3 7 1 0
4 9 9 9
5 1 23 12
6 6 5 9
7 1
```

Expected Output

```
1 7 1 0
```

Problem - 4 Built-Ins

HackerRank

Prepare > Python > Built-ins > Any or All

Exit Full Screen View

Problem

Task

You are given a space separated list of integers. If all the integers are positive, then you need to check if any integer is a palindromic integer.

Input Format

The first line contains an integer N . N is the total number of integers in the list.
The second line contains the space separated list of N integers.

Constraints

$0 < N < 100$

Output Format

Print True if all the conditions of the problem statement are satisfied. Otherwise, print False.

Sample Input

```
5
12 9 61 5 14
```

Sample Output

```
True
```

Explanation

Submissions

Leaderboard

Discussions

You have earned 20.00 points!
40/115 challenges solved.

35%

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

[Next Challenge](#)

Test case 0 [Success](#)

Test case 1 [Success](#)

Test case 2 [Success](#)

Test case 3 [Success](#)

Test case 4 [Success](#)

Test case 5 [Success](#)

Compiler Message

Success

Input (stdin)

```
1 5
2 12 9 61 5 14
```

Expected Output

```
1 True
```

Problem - 5 Built-Ins


Problem

Submissions

Leaderboard

Discussions

You are given a string S .
 S contains alphanumeric characters only.



Your task is to sort the string S in the following manner:

- All sorted lowercase letters are ahead of uppercase letters.
- All sorted uppercase letters are ahead of digits.
- All sorted odd digits are ahead of sorted even digits.

Input Format

A single line of input contains the string S .

Constraints

- $0 < len(S) < 1000$

Output Format

Output the sorted string S .

Sample Input

```
Sorting1234
```

You have earned 40.00 points!
41/115 challenges solved.

36%

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

Next Challenge

Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Compiler Message

Success

Input (stdin) [Download](#)

1 `Sorting1234`

Expected Output [Download](#)

1 `ginortS1324`