

# Zipped!

HackerRank

## `zip([iterable, ...])`

This function returns a list of tuples. The  $i^{\text{th}}$  tuple contains the  $i^{\text{th}}$  element from each of the argument sequences or iterables.

If the argument sequences are of unequal lengths, then the returned list is truncated to the length of the shortest argument sequence.

### Sample Code

```
>>> print zip([1,2,3,4,5,6], 'Hacker')
[(1, 'H'), (2, 'a'), (3, 'c'), (4, 'k'), (5, 'e'), (6, 'r')]
>>>
>>> print zip([1,2,3,4,5,6], [0,9,8,7,6,5,4,3,2,1])
[(1, 0), (2, 9), (3, 8), (4, 7), (5, 6), (6, 5)]
>>>
>>> A = [1,2,3]
>>> B = [6,5,4]
>>> C = [7,8,9]
>>> X = [A] + [B] + [C]
>>>
>>> print zip(*X)
[(1, 6, 7), (2, 5, 8), (3, 4, 9)]
```

### 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

Print the averages of all students on separate lines.

The averages must be correct up to 1 decimal place.

### Sample Input

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

### Sample Output

```
90.0
91.0
82.0
90.0
85.5
```

### Explanation

Marks obtained by **student 1**: 89,90,91

Average marks of **student 1**:

$$270/3 = 90$$

Marks obtained by **student 2**: 90,91,92

Average marks of **student 2**:

$$273/3 = 91$$

Marks obtained by **student 3**: 78,85,83

Average marks of **student 3**:

$$246/3 = 82$$

Marks obtained by **student 4**: 93,88,89

Average marks of **student 4**:

$$270/3 = 90$$

Marks obtained by **student 5**: 80,86,90.5

Average marks of **student 5**:

$$256.5/3 = 85.5$$

```
1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 if __name__ == '__main__':
3     A = list(map(int, input().split()))
4     B = []
5     for i in range(A[1]):
6         B.append(list(map(float, input().split())))
7     for i in zip(*B):
8         print(sum(i)/len(i))
9
```