Collections.namedtuple()

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collections.namedtuple()

Basically, *namedtuples* are easy to create, lightweight object types.
They turn tuples into convenient containers for simple tasks.
With *namedtuples*, you don't have to use integer indices for accessing members of a tuple.

Example

Code 01

```
>>> from collections import namedtuple
>>> Point = namedtuple('Point','x,y')
>>> pt1 = Point(1,2)
>>> pt2 = Point(3,4)
>>> dot_product = ( pt1.x * pt2.x ) +( pt1.y * pt2.y )
>>> print dot_product
11
```

Code 02

```
>>> from collections import namedtuple
>>> Car = namedtuple('Car','Price Mileage Colour Class')
>>> xyz = Car(Price = 100000, Mileage = 30, Colour = 'Cyan', Class = 'Y')
>>> print xyz
Car(Price=100000, Mileage=30, Colour='Cyan', Class='Y')
>>> print xyz.Class
Y
```


Task

Dr. John Wesley has a spreadsheet containing a list of student's IDs, $marks$, $class$ and $name$.

Your task is to help Dr. Wesley calculate the average marks of the students.

$$Average = \frac{Sum\ of\ all\ marks}{Total\ Students}$$

Note:

1. Columns can be in any order. IDs, marks, class and name can be written in any order in the spreadsheet.

2. Column names are `ID`, `MARKS`, `CLASS` and `NAME`. (The spelling and case type of these names won't change.)

Input Format

The first line contains an integer N, the total number of students.
The second line contains the names of the columns in any order.
The next N lines contains the $marks$, IDs, $name$ and $class$, under their respective column names.

Constraints

$0 < N \leq 100$

Output Format

Print the average marks of the list corrected to 2 decimal places.

Sample Input

TESTCASE 01

```
5
ID         MARKS      NAME       CLASS
1          97         Raymond    7
2          50         Steven     4
3          91         Adrian     9
4          72         Stewart    5
5          80         Peter      6
```

TESTCASE 02

```
5
MARKS      CLASS      NAME       ID
92         2          Calum      1
82         5          Scott      2
94         2          Jason      3
55         8          Glenn      4
82         2          Fergus     5
```

Sample Output

TESTCASE 01

```
78.00
```

TESTCASE 02

```
81.00
```

Explanation

TESTCASE 01

Average = $(97 + 50 + 91 + 72 + 80)/5$

Can you solve this challenge in `4 lines of code or less`?
NOTE: There is `no penalty` for solutions that are correct but have more than 4 lines.

Current Buffer (saved locally, editable) Python 3

```
1  import re
2  from collections import namedtuple
3  from functools import reduce
4
5  tup_list = []
6  n = int(input().strip())
7
8  student = namedtuple('student', input().strip())
9
10 for x in range(n):
11     data_list = re.findall(r'\w+', input().strip())
12     tup_list.append(student._make(data_list))
13
14 marks = [int(t.MARKS) for t in tup_list]
15 avgnum = sum(marks) / len(marks)
16 print('{:.2f}'.format(avgnum))
```

Line: 16 Col: 31

Upload Code as File Test against custom input Run Code Submit Code

Testcase 0 ✔ Testcase 1 ✔

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
5
ID         MARKS      NAME       CLASS
1          97         Raymond    7
2          50         Steven     4
3          91         Adrian     9
4          72         Stewart    5
5          80         Peter      6
```

Your Output (stdout)

```
78.00
```

Expected Output

```
78.00
```