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**The Student Grade Calculator**

6 points

**Introduction**

Thyra is a Science teacher, and during this quarter she has delivered homework and several exams to her students.

She needs to compute the final grade for each student, considering that not all exams nor homework assignments have the same weight regarding the final grade...

Help Thyra write a program that computes the weighted arithmetic mean given the grades and weights per each student. The weighted arithmetic mean is computed with this formula:

$$\bar{x}_w = \sum_{i=1}^N x_i \cdot w_i$$

Where  $x_i$  are the grades and  $w_i$  are the corresponding weights. In case you don't remember what the uppercase sigma means, in mathematics it represents a summation: the addition of a sequence of any kind of numbers. In this case it is the sum of the product  $x_i \cdot w_i$  for each value of  $i$ .

**Input**

Input must be two lines, the first containing the student school grades and the second the weight of each grade.

Values will be separated by one space. Grades are numbers between 0.0 and 10.0. Weights are numbers between 0.0 and 1.0.

**Output**

The output will print a single line with the weighted arithmetic mean of the input values considering the weights. Only output one decimal digit.

The student final grade is *weighted\_arithmetic\_mean\_value*

## Example 1

### Input

6.5 7.7 7.2 10.0 7.0 8.5

0.1 0.1 0.1 0.1 0.2 0.4

### Output

The student final grade is 7.9

## Example 2

### Input

8.5 9.0 10.0 8.6

0.1 0.2 0.2 0.5

### Output

The student final grade is 8.9