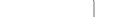


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Day 0: Weighted Mean ■



Problem

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Tutorial

Objective

In the previous challenge, we calculated a *mean*. In this challenge, we practice calculating a *weighted mean*. Check out the Tutorial tab for learning materials and an instructional video!

Task

Given an array, X, of N integers and an array, W, representing the respective weights of X's elements, calculate and print the weighted mean of X's elements. Your answer should be rounded to a scale of 1 decimal place (i.e., 12.3 format).

Input Format

The first line contains an integer, N, denoting the number of elements in arrays X and W.

The second line contains $m{N}$ space-separated integers describing the respective elements of array $m{X}$.

The third line contains N space-separated integers describing the respective elements of array W.

Constraints

- 5 < N < 50
- $0 < x_i \le 100$, where x_i is the i^{th} element of array X.
- $0 < w_i \le 100$, where w_i is the i^{th} element of array W.

Output Format

Print the weighted mean on a new line. Your answer should be rounded to a scale of 1 decimal place (i.e., 12.3 format).

Sample Input

Sample Output

32.0

Explanation

We use the following formula to calculate the weighted mean:

$$m_w = rac{\sum_{i=0}^{N-1} \left(x_i imes w_i
ight)}{\sum_{i=0}^{N-1} w_i} \Rightarrow m_w = rac{10 imes 1 + 40 imes 2 + 30 imes 3 + 50 imes 4 + 20 imes 5}{1 + 2 + 3 + 4 + 5} = rac{480}{15} = 32.0$$

And then print our result to a scale of ${f 1}$ decimal place (32.0) on a new line.

Submissions:<u>16878</u>
Max Score:30
Difficulty: Easy
Rate This Challenge:
☆☆☆☆☆☆



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