

# Problem 1

[Lab assignment 2 Assemble](#)

## Problem 1. Vector Multiplication (20 pts)

Vector multiplication is an important operation in mathematics, and we would like you to implement the functionality to calculate the product of two vectors using RISC-V code.

### Input Format

The input consists of several lines.

The first line contains a positive integer  $N$  ( $1 \leq N \leq 100$ ), which represents the dimension of the vectors.

The following  $N$  lines (from the 2nd line to the  $N + 1$  line) represent the content of the first vector, with each line containing a floating-point number.

The following  $N$  lines (from the  $N + 2$  line to the  $2N + 1$  line) represent the content of the second vector, with each line containing a floating-point number.

In this problem, you need to perform the calculations using the **float data type** in RV32. Therefore, when reading the input floating-point numbers, use the NO. 6 system call.

### Output Format

Output a single floating-point number that represents the result of multiplying the two vectors.

### Samples

#### Sample 1

##### Input

```
2
1.0
2.0
1.0
2.0
```

##### output

```
5.0
```

#### Sample 2

##### Input

```
1
2.2
2.2
```

##### output

```
4.84
```