G. On a plane

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Input

The first line contains a single integer n ($1 \le n \le 1000$) — the number of points on a plane.

Each of the next n lines contains two real coordinates x_i and y_i of the point, specified with exactly 2 fractional digits. All coordinates are between -1000 and 1000, inclusive.

Output

Output a single real number θ — the answer to the problem statement. The absolute or relative error of your answer should be at most 10^{-2}.

Examples

input
8 -2.14 2.06 -1.14 2.04 -2.16 1.46 -2.14 0.70 -1.42 0.40 -0.94 -0.48 -1.42 -1.28 -2.16 -1.62

output
5.410

input
5 2.26 1.44 2.28 0.64 2.30 -0.30 1.58 0.66 3.24 0.66

output
5.620

input
8 6.98 2.06 6.40 1.12 5.98 0.24 5.54 -0.60 7.16 0.30 7.82 1.24 8.34 0.24 8.74 -0.76

output
5.480

input

```
5
10.44 2.06
10.90 0.80
11.48 -0.48
12.06 0.76
12.54 2.06
```

output

```
6.040
```

input

```
8
16.94 2.42
15.72 2.38
14.82 1.58
14.88 0.50
15.76 -0.16
16.86 -0.20
17.00 0.88
16.40 0.92
```

output

```
6.040
```

input

```
7
20.62 3.00
21.06 2.28
21.56 1.36
21.66 0.56
21.64 -0.52
22.14 2.32
22.62 3.04
```

output

```
6.720
```