Baltic OI '02 P3 - Triangles

Time limit: 1.0s **Memory limit:** 256M

Baltic Olympiad in Informatics: 2002 Day 1, Problem 3

There are given n isosceles right triangles on a plane. Each triangle can be described by three integers x, y, m. Vertices of such a triangle are points which have coordinates (x, y), $(x + m, y)$ and $(x, y + m)$.

Write a program which calculates the total area covered by triangles.

Constraints

$1 \leq n \leq 2\,000$

$|x_i|, |y_i| \leq 10^7$

$1 \leq m_i \leq 1\,000$

Input Specification

The first line of input contains one positive integer n, the number of triangles on a plane.

The next n lines describe the triangles, one triangle per line. Each line contains three space-separated integers x_i, y_i and m_i $(1 \leq i \leq n)$.

Output Specification

Output one number with exactly one digit after the decimal point - the total area covered by triangles.

Sample Input

```
5
-5 -3 6
-1 -2 3
0 0 2
-2 2 1
-4 -1 2
```

Sample Output

```
24.5
```