Triangles

There are given n isosceles right triangles on a plane. Each triangle can be described by three integers x,y,m (m>0). 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.

Input data

The first line of the input file `tr.in` contains one positive integer n ($n \leq 2000$), the number of triangles on a plane.

The next n lines of the file describe the triangles, one triangle per line. Each line contains three integers x_i, y_i and m_i, separated by single spaces ($1 \leq i \leq n$, $-10^7 \leq x_i \leq 10^7$, $-10^7 \leq y_i \leq 10^7$, $0 < m_i \leq 1000$).

Output data

On the first line of the file `tr.out` one number with exactly one digit after decimal point must be written – the total area covered by triangles.

Example

tr.in	tr.out
5	24.5
-5 -3 6	
-1 -2 3	
0 0 2	
-2 2 1	
-4 -1 2	