

# Vectors

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            7.5 seconds  
Memory limit:         256 megabytes

There are  $n$  vectors in the plane. Each vector has weight associated with it. A pair of vectors is *good* if its scalar product is at least  $k$ . Weight of a pair of vectors is the product of vectors' weights. Find sum of weights of all good pairs.

## Input

The first line of input contains two integers  $n$  and  $k$  ( $1 \leq n \leq 10^5$ ,  $0 \leq k \leq 2 \cdot 10^9$ ).

Each of the next  $n$  lines contains three integers  $x_i$ ,  $y_i$  and  $c_i$  — coordinates and weight of corresponding vector ( $0 \leq x_i, y_i \leq 30000$ ,  $0 \leq c_i \leq 10000$ ).

It is guaranteed that all vectors are non-zero and distinct.

## Output

Print the answer to the problem.

## Examples

standard input	standard output
3 1 1 0 1 1 1 1 0 1 1	2