



## SET OF CIRCLE

Consider  $n$  distinct circles where the centers are arranged on a line. Let the  $i$ -th circle has the center  $x_i$  and radius  $w_i$ . Let's find the maximum number of circles from  $n$  circles such that the distance between any pair of center of circles  $i$  and  $j$  is not less than the sum of their radius, or more formally:  $|x_i - x_j| \geq w_i + w_j$ .

### Input

The first line contains the integer  $n$  ( $1 \leq n \leq 200\,000$ ) — the number of circles.

Each of the next  $n$  lines contains two numbers  $x_i, w_i$  ( $0 \leq x_i \leq 10^9, 1 \leq w_i \leq 10^9$ ) — the center and the radius of a circle.

### Output

Print a single number — the size of maximum number of circles that satisfied this condition.

### Examples

Standard Input	Standard Output
4 2 5 3 1 6 1 0 2	3