Problem D. IQ Test

Input file:	stdin
Output file:	stdout
Time limit:	1 second
Memory limit:	512 megabytes

As a truly clever guy, bobo has never entered any kind of IQ tests. But here comes one.

The test consists of n questions, which are numbered conveniently by $1, 2, \ldots, n$. Each question has two options – namely options "A" and "B". The i-th question is "How many questions among questions $1, 2, \ldots, (i-1)$ are answered by option t_i?". (t_i is either "A" or "B".) Option "A" says there are x_i questions while option "B" says y_i.

bobo soon notices that the test is poorly-designed, so he wonder how many questions he can answer correctly at most.

Input

The first line contains an integer n ($1 \le n \le 200000$).

Each of the following n lines contains a character t_i and 2 integers x_i, y_i ($t_i \in \{A, B\}, 0 \le x_i, y_i \le n$).

Output

A single integer denotes the maximum number of questions he can answer correctly.

Sample input and output

stdin	stdout
2 A 0 1 B 0 1	2
2 A 1 2 B 0 1	1