

Problem G

Viral Test

Time limit: 1 second

Dr. Smith accidentally discovers that the blood glucose level seems to be related to the incidence of a new virus. He starts collecting data from his patients, including blood glucose level and test results (positive or negative), as shown in the table below.

patient id	blood glucose level	test result
1	125	positive
2	100	positive
3	70	negative
4	120	positive
5	95	positive
6	60	negative
7	220	positive
8	85	negative
9	75	positive
10	90	negative

Dr. Smith believes that the results of the viral tests can be predicted based on blood glucose levels. The prediction procedure is simple: if the blood glucose level is greater than a threshold, a viral infection is detected (positive); otherwise no infection is found (negative) and vice versa.

Taking data displayed in the above table as an example, the best threshold value falls between 90 and 95, because the blood glucose levels with negative test results are all lower than or equal to 90, and those with positive test results are higher or equal to 95, except for one (patient id: 9). Therefore, the prediction accuracy rate is 90% (9/10), which is the best prediction result of this prediction procedure. Given patients' data, please write a program to help Dr. Smith determine the optimal threshold. The output of your program should be the number of samples which are correctly predicted.

Input File Format

The test data file may contain many test cases. Each test case contains several lines. The first line contains an integer N ($1 < N < 10^5$), indicating the number of samples. Each of the following N lines contains one real number b ($60.0 < b < 300.0$) and one binary number t , indicating the blood glucose level and test result (1: positive, 0: negative). The blood glucose levels in each test case are distinct. The last test case is followed by a line containing a single 0.

Output Format

The output for each test case is the number of correctly predicted samples in a best prediction result.

Sample Input

```
4
80.5 1
90.5 0
100.5 0
110.5 0
10
125 1
100 1
70 0
120 1
95 1
60 0
220 1
85 0
75 1
90 0
0
```

Sample Output for the Sample Input

```
4
9
```