

5105 Selecting courses

A new Semester is coming and students are troubling for selecting courses. Students select their course on the web course system. There are n courses, the i -th course is available during the time interval (A_i, B_i) . That means, if you want to select the i -th course, you must select it after time A_i and before time B_i . A_i and B_i are all in minutes. A student can only try to select a course every 5 minutes, but he can start trying at any time, and try as many times as he wants. For example, if you start trying to select courses at 5 minutes 21 seconds, then you can make other tries at 10 minutes 21 seconds, 15 minutes 21 seconds, 20 minutes 21 seconds ... and so on. A student can't select more than one course at the same time. It may happen that no course is available when a student is making a try to select a course.

You are to find the maximum number of courses that a student can select.

Input

There are no more than 100 test cases.

The first line of each test case contains an integer N . N is the number of courses ($0 < N \leq 300$)

Then N lines follows. Each line contains two integers A_i and B_i ($0 \leq A_i < B_i \leq 1000$), meaning that the i -th course is available during the time interval (A_i, B_i) .

The input ends by $N = 0$.

Output

For each test case output a line containing an integer indicating the maximum number of courses that a student can select.

Sample Input

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2
1 10
4 5
0
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Sample Output

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2
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