3. University Career Fair

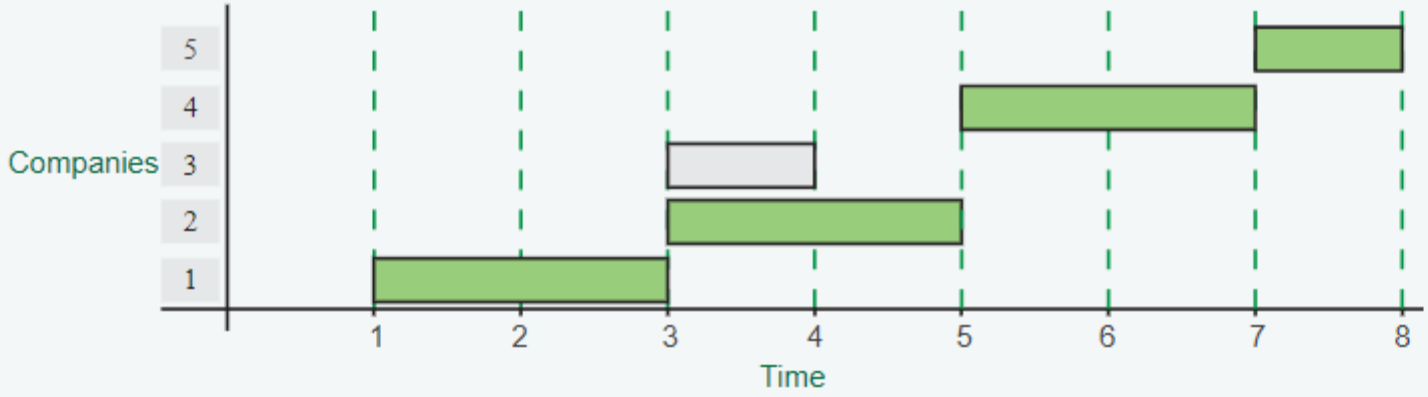
A team organizing a university career fair has a list of companies along with their respective arrival times and their duration of stay. Only one company can present at any time. Given each company's arrival time and the duration they will stay, determine the maximum number of presentations that can be hosted during the career fair.

Example

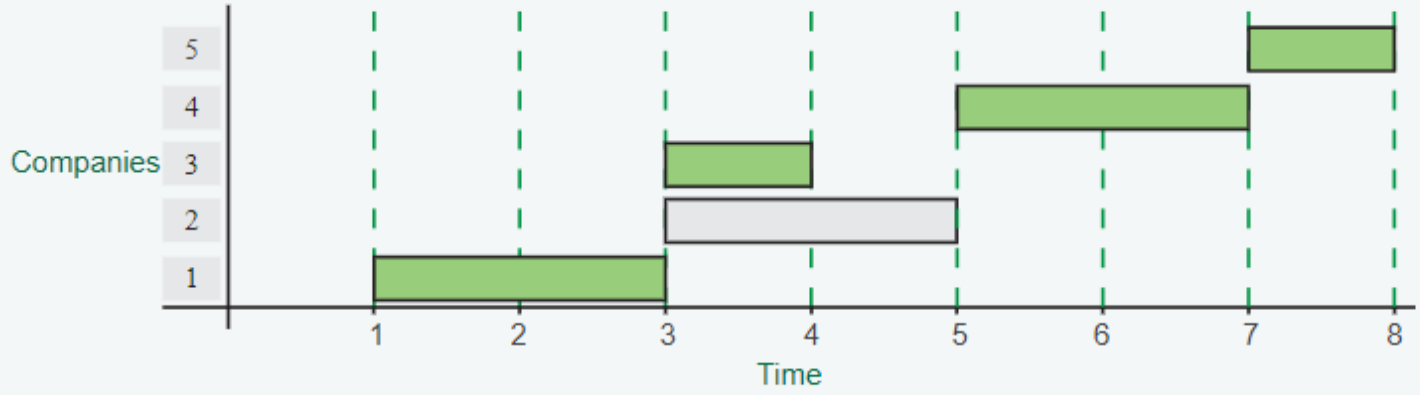
n = 5

arrival = [1, 3, 3, 5, 7]

duration = [2, 2, 1, 2, 1]



OR



The first company arrives at time *1* and stays for *2* hours. At time *3*, two companies arrive, but only *1* can stay for either *1* or *2* hours. The next companies arrive at times *5* and *7* and do not conflict with any others. In total, there can be a maximum of *4* promotional events.

Function Description

Complete the function *maxEvents* in the editor below.

maxEvents has the following parameter(s):

int arrival[n]: an array of integers where i^{th} element is the arrival time of the i^{th} company

int duration[n]: an array of integers where i^{th} element is the duration that the i^{th} company's stay at the career fair

Returns:

int: the maximum number of promotional events that can be hosted

Constraints

- $1 \leq n \leq 50$

- *1 ≤ arrival[i] ≤ 1000*
- *1 ≤ duration[i] ≤ 1000*
- *Both the 'arrival' array and 'duration' array will have an equal number of elements*

▼ Input Format For Custom Testing

The first line contains an integer, *n*, the number of elements in *arrival*.

Each line *i* of the *n* subsequent lines (where *0 ≤ i < n*) contains an integer that describes *arrival[i]*.
The next line again contains the integer, n, the number of elements in *duration*.

Each line i of the n subsequent lines (where 0 ≤ i < n) contains an integer that describes *duration[i]*.

▼ Sample Case 0

Sample Input For Custom Testing

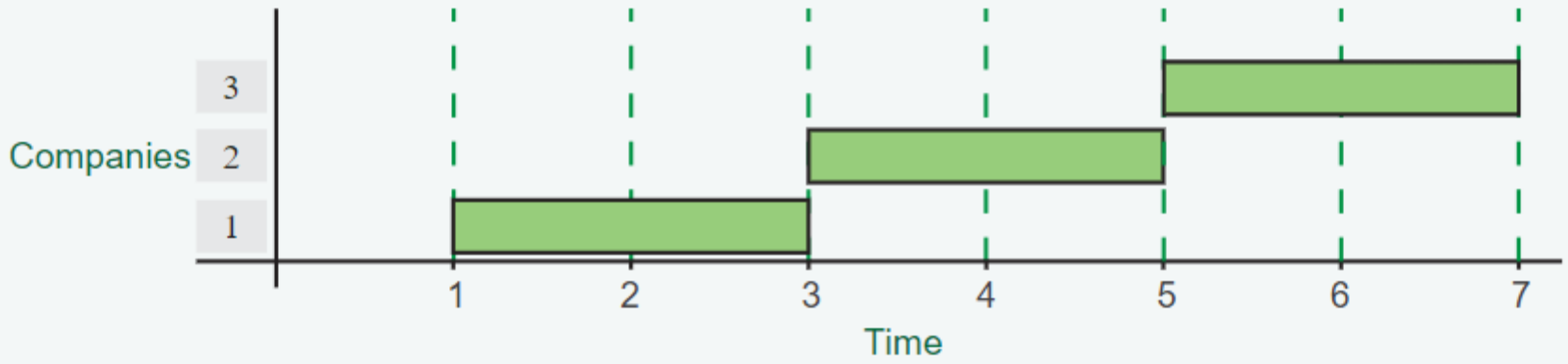
```
STDIN       Function
-----       --------
3       →   arrival[] size n = 3
1       →   arrival = [1, 3, 5]
3
5
3       →   duration[] size n = 3
```

```
2     →    duration = [2, 2, 2]
2
2
```

Sample Output

```
3
```

Explanation



All *3* events can be hosted as each of the companies arrives only after the previous one's duration has ended.

▼ Sample Case 1

Sample Input For Custom Testing

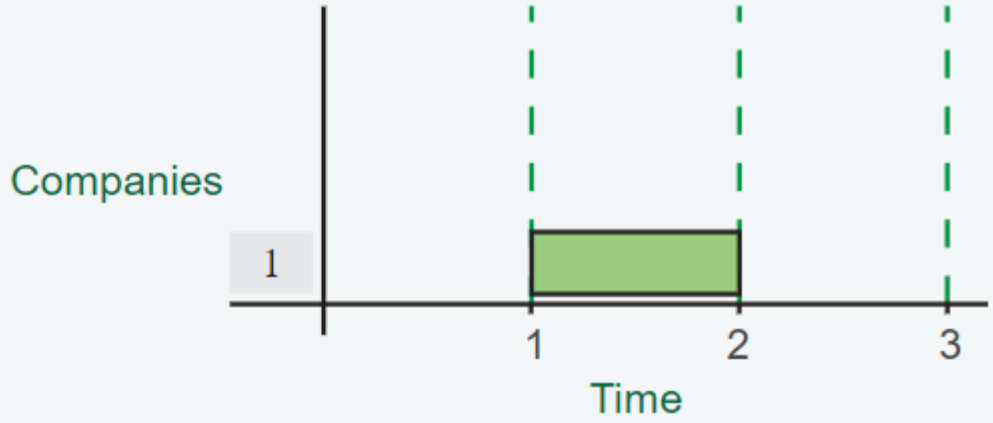
```
STDIN       Function
-----       --------
1     →     arrival[] size = 1
```

```
1     →     arrival = [1]
1     →     duration[] size = 1
5     →     duration = [1]
```

Sample Output

```
1
```

Explanation



Only *1* company is present at the fair and its event can be hosted with no conflicts.