4. Convoy at Cowhouse Creek Bridge

Program Name: Convoy.java **Input File: convoy.dat**

In a remote area of Fort Hood, there is a single lane bridge that spans Cowhouse Creek. Besides being single lane, there is a load limit of 42 tons for this bridge. Frequently, a convoy of military vehicles has to cross the bridge. The bridge gate keeper must divide the convoy into groups of one or more vehicles so that the load limit for the bridge is not exceeded and that there are as few groups as possible. You may assume the bridge is long enough to hold an entire group at one time and all of one group will completely cross the bridge before another group is allowed to start crossing the bridge.

Input
The first line of input will contain a single integer `n` that indicates the number of convoys to cross the bridge. Each of the following `n` lines will contain an integer `v`, $1 \leq v \leq 10$, indicating the number of vehicles in the convoy followed by a space and the weights `w`, in tons, of the vehicles in the convoy. The weights, $1 \leq w \leq 42$, will be separated by a space. There will be no more than 10 vehicles in a convoy.

Output
For each convoy, you will print the minimum of groups necessary to get all vehicles in the convoy across the bridge.

Example Input File
```
3
10 15 5 2 6 8 15 10 40 3 6
10 5 3 6 8 9 10 3 14 40 35
8 21 30 20 17 16 27 8 42
```

Example Output to Screen
```
3
4
5
```