I: Gadget Collections

The engineers at the High Stakes Pocket-filler Coalition need your help to develop the most effective collection of gadgets out of their vast collection. Unfortunately, each spy's pockets are only so big, and the gadgets take up different amounts of room. You are tasked to find the number of different ways the agents can fill their pockets with gadgets. Agents may hold multiple of the same gadget at the same time.

Input

The first line of the input data is the number of test cases, m. Each test case starts with a new line which is size of the agent's pocket, s, which is in the range of 250 to 400, inclusive. The next line is the number of unique gadgets in the collection, n, which is in the range 8 to 13, inclusive. The next n lines are the sizes of each gadget in the collection. The sizes are given in a random order.

Output

Your output should be one line, for each test case, which contains the number of possible combinations that can fill the pocket. Each gadget may be used multiple times.

Sample Input

```
2
4
2
2
1
3
1
4
```

Sample Output

```
3
0
```