Password
Input File: password.txt

Congratulations! You've forgotten your password for the 71st time!

You only remember that your password consists of a series of strings and was a certain length... oh well. Time to make the next password "bubbleSortIsTheBest1234567890"...

You would like to know how many passwords exist such that each password consists of only strings from a given *allowed* list and is a specified length.

Input:

An integer, *n*, the number of data sets:
For each data set:
Two space-separated integers, *a* and *l*, specifying the length of the allowed list ($0 < a < 6$) and the length of the password ($0 < l < 10$).
a space-separated strings, each a string in the allowed list.

Output:

The number of possible distinct passwords.

Example Input:

```
2
3 9
a pass xyz
4 4
a b c d
```

Example Output:

```
40
256
```