TASK1

Given N and K and a list of numbers find the Kth minimum number and Kth maximum number.

INPUT

First line contains the number of test cases N, followed by N cases as specified below
Two integers N and K.
Next line contains N space separated integers

OUTPUT

write to a file the kth Smallest and kth Largest numbers on a single line
and push to GitHub

SAMPLE INPUT

3
3 2
1 2 3
5 2
3 7 5 9 2

SAMPLE RESULT

2 2
2 7

TASK2

The Nigeria Football match is about to start and the list of available players is being shown on the screen, Your friend has just ask you to find which name in the player list as all its letters in the remaining players names in any order. As an ACM member you have decide no not bother about it but simply to write a program to solve it!

INPUT

The input consist of a single line containing the number of test case T.
T test cases follows with a single line of N space separated words.

OUTPUT

for each case write to a file the word whose all letters are in all others words.
if no word matches the above description write "NO MATCHES", quotes for clarity.
NB:
The given words might not be valid names

SAMPLE OUTPUT
3
abdul james ab
james cosmic joe
jane john Emmanuel

SAMPLE INPUT
ab
joe
NO MATCHES

TASK3

Given a list of words find which letter has the most frequency.

INPUT
A single integer T denoting the number of test cases. T Test case followed, each a single line containing a single

OUTPUT
Write to a file the most frequent letter in each word.

NB:
In the case of tie write any to the file

SAMPLE INPUT
4
backspace
google
federal
magic

SAMPLE OUTPUT
a o e i

TASK4

Find the number of ways to permutate a given word.

INPUT
A single integer T denoting the number of testcases. T Testcase followed, each a single line containing a single word

OUTPUT
Write to a file the number of ways to permutate the given word.

SAMPLE INPUT
4
backspace
google
federal
magic

SAMPLE OUTPUT
362880
720
5040
120

TASK 5

With a given list like this [12,24,35,24,88,120,155,88,120,155], write a program to print this list after removing all duplicate values with original order reserved.

Hints:

It is easier to use the set theorem to store a number of values without duplicate.

TASK 6

Write a program to solve a classic ancient Chinese puzzle:

We count 35 heads and 94 legs among the chickens and rabbits in a farm. How many rabbits and how many chickens do we have?

Hint:

Use for loop to iterate all possible solutions.