Question 1:

Write a program to validate password with following conditions:

1. Password should have 1 letter in small case [a-z]
2. Minimum 1 numeric digit [0-9]
3. At least 1 letter in uppercase [A-Z]
4. Minimum 1 special character from [$#@]
5. It should not take any blank space
6. It should not take these special characters “+-,.=“
7. Minimum length of password: 8
8. Maximum length of password: 14

The program will take multiple inputs separated by semicolon and will check them for above conditions. Your program should create a two dimensional array with all the passwords and the final status as true and false and print each password in a separate line.

Sample Input:

GoodWork@1; Difficult@23; Correct%1; bad password; not working

Output should be:

GoodWork@1, True

Difficult@23, True

Correct%1, True

badpassword, False

not working, False

Question 2:

John works in the cyber security cell. He wants to generate secret keys following a pattern. The pattern consists of the characters 'X' and 'Y' where X means increasing and 'Y' means decreasing. Help him devise an algorithm to generate the secret key which is the minimum number encoded following that pattern. Digits from 1-9 and digits can’t repeat.

Sample Input:	**Sample Output:**
X	12
YXYX	21435
YYXYYXXY	321654798