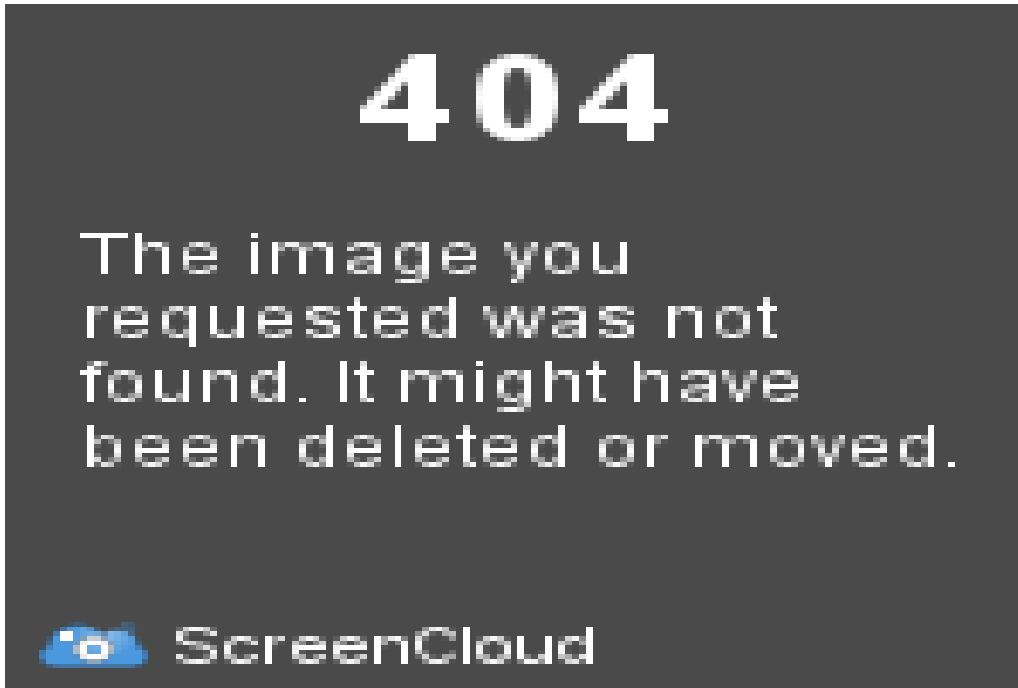


The Smurfs

Clumsy has a list of integers and he wants to do some operations on them. He wants to do the operations in the shortest possible time, so he asked Brainy about the easiest way to do that. Brainy told him that there is a new invention which is called "The Computer" and it is the fastest and easiest way to do that using C++. Unfortunately Clumsy doesn't know how to use it, so he asks you to help him in writing a program that calculates the summation and the multiplication of two numbers.



Input

Your program will be tested on one or more test cases, the first line of input will be a single integer T which is the number of test cases ($1 \leq T \leq 100$), followed by T lines, each line represents one test case.

Each case consists of two integers A ($1 \leq A \leq 1000$) and O ($1 \leq O \leq 1000$) which are the two numbers used in the operations.

Output

For each test case, print "Case_#i:_H_,_T" where "H" is the program's first output and "T" is the program's second output, "i" is the number of the test case (starting with 1) and "_" is a white space. Each output should be printed in a separate line.

Example

Input:

```
3
1 5
9 3
10 15
```

Output:

Case #1: 6 , 5

Case #2: 12 , 27

Case #3: 25 , 150