Time limit: 100 sec	A. Hello CUPC, Ami Takla Na	Memory limit: 1000 TB

There are two types of Takla.
   a) Who is a bald head.
   b) Who can't write good Banglish :p

A Takla of 2nd type usually writes **kamon** instead of **kemon**, **aco** instead of **achho**, **tome** instead of **tumi**, **vondura** instead of **bondhura**.

You see a Taklish code written by a Takla.
Now edit the code and write in such a way that we cannot call you a Takla.

```c
#include <stdio.h>

int main() {

    printf("Hello CUPC. kamon aco vondura?\n");

    return 0;

}
```

Input Format

There will be no input

Output Format

Print the accurate Banglish sentence according to the code shown above

Sample Output

```
Hello CUPC. kamon aco vondura?
```

Time limit: 1 sec	B. Cheating Service	Memory limit: 512 MB

A few days back, there was a hot topic, **seating service** vs. **local service**. Both seating and local bus service have their own advantages and disadvantages.
Advantages of seating service:
   • One can ride with aaram & shanti along with his/her boyfriend/girlfriend/husband/wife.
   • Less travel time
   • One can sits on a seat for sure if he can get into the bus etc.
It has a lot disadvantages too, besides local bus service also has a lot of advantages. That's why **Justin Viber Bin Driver** likes local bus service. But who cares?
The good news is you got a job of a "**checker**" who checks every bus of "**City Seating Service**" and you count how many passengers are there.
Now, I want to gift you something that will help you count the passengers.

```c
#include <stdio.h>
int main() {
    int a, b, c;
    scanf("%d %d %d", &a, &b, &c);
    int d = a + b + c;
    printf("%d", d);
}
```

This program will count and print total number of passengers of 3 buses.
Now, can you write a program that will count total number of passengers of 5 buses?
Input Format
Input consists of 5 integers 1<= A < 20. (These 5 integers indicate no. of passengers in 5 buses)

Output Format
Print the number of total passengers.

Sample

1 2 3 4 5	15

Time limit: 1 sec	C. A dedicated soul	Memory limit: 512 MB

Bangladesh cricket team is doing fantastic now a days. Captain of Bangladesh Mashrafe Bin Mortaza can be defined as a dedicated soul. He is basically a bowler in role. One day Mashrafe is practicing throwing. He stands in a such point in the ground that the boundary is from Front (F) 40 yards, In Back (B) 80 yards, in Left (L) 60 yards and in Right (R) 50 yards in distance. You're given the length (D) from Mashrafe's standing point to where the ball dropped.

Input Format
Input consists of an integer 1<= T <20 number of test cases, a character 'F', 'B' ,'L' or 'R' orientation of Mashrafe's throwing and an integer D the length in yards 0 < D < 100.

Constraints
$1 \leq T < 20$
$0 < D < 100$

Output Format
For given data print a single line "How cute!" without quotes if the ball cross the boundary, or print "Have rest dear." without quotes.

Sample

2	Have rest dear.
F 39	How cute!
F 41	

Time limit: 1 sec	D. Perfect Bank!	Memory limit: 512 MB

In ancient time there was an imaginary bank named Perfect Bank in Perfect Country. Mr. Perfect owned the bank, Mr. Perfect was an interesting person. He wore the all hats of his bank, and totally there is only two officials of the bank. In perfect bank the notes and currencies (P)* was also perfect but they are perfect square. Perfect square is an integer that is the square of an integer like 2^2 = 4 is a perfect square. The notes in the Banks are perfect square and greater than 1 P and not more than 100 P. As there is only two officials your task is to calculate how many ways Mr. Perfect can give an amount to his customers.[* here P is the currency of Perfect Country like BDT or $]

Input Format
Input consists of lines each containing a positive integer amount to be given by Mr. Perfect to his customer and a character denoting currency. Amount is not more than 5000 P

Constraints
$0 < amount \leq 5000$

Output Format
Print one line followed by "**Case #x : y**" where **x** is the case number and **y** is how many ways Mr. Perfect can give the amount to his customers or "**Case #x: Can not be given.**" without quotes.

Sample:

21 P	Case #1 : 1
3 P	Case #2 : Can not be given.
81 P	Case #3 : 28

Time limit: 1 sec	E. Phunsukh Wangdu's Ride (Easy)	Memory limit: 512 MB

Dhaka city is one of the most populated country in this world. Dozens of universities and thousands of students live in here. But the transport system is not so feasible and buses aren't very available. As a result students suffer a lot. Sometimes they miss their classes. One of those great guys is **Rayhan**. :p

So the **Association of City Moderation (ACM)** has decided to launch some new buses only for students. And the name of that service is **Iterate and Cover all Paths of City (ICPC)**.

The amazing thing is, the road is a straight line. Every stoppage has a unique serial number. There are book-stalls in every stoppage. And the buses wait for a passenger to buy some books. The drivers don't mind, they encourage others to buy books.

Your friend **Phunsukh Wangdu** has decided to ride on a bus of ICPC. Obviously he will not get into any bus which will not stop at his desired stoppages. Because the book stalls of those stoppages have some special books which Wangdu wants to buy. Besides your friend will not get into the bus if it waits for any other passenger where he will not stop at during his travel time.

s

Another thing is, **drivers only like composite numbers** and the stoppages that have composite numbers as their serial number. So if Wangdu wants to stop at stoppage 5 the bus will not stop there and hence he will not ride on this bus.

Besides, have a look at this route: 4 6 8 **10 8** 12 14 16 ... You see, 8 comes after 10. In such cases, the bus will stop at 4, 6, 8, 10 and then it will go back to **8**. Then it will directly come to stoppage **12**.

Note:
- There is no stoppage fixed by ACM which has a prime number as it's serial number.
- Your friend will not visit any stoppage twice.

Now your job is to determine if he will ride on the bus or not.

Input Format

Input will consist of several lines. The first line will contain **T**, which is the number of test cases. Each test case will contain **N** (Number of stoppages of the bus), **M** (Number of stoppages your friend wants to stop at), Then a list of stoppages of the bus ($N_1, N_2, N_3, ... N_{N-1}$) and a list of target stoppages of your friend ($M_1, M_2, M_3, ... M_{M-1}$).

Constraints

$1 \le T \le 10$

$1 \le N, M \le 50$

$1 \le N_i, M_i \le 100$

Output Format

Print case number and YES if he can ride on, otherwise print NO and print a new line after each result. See samples for clarification.

Samples:

3	Case 1: YES
6 3	Case 2: NO
4 6 10 12 14 16	Case 3: NO
10 12 14	
7 4	
4 6 8 10 12 14 50	
6 10 12 14	
4 4	
10 15 20 25	
15 20 25 30	

Time limit: 1 sec	**F. Phunsukh Wangdu's Ride (Medium)**	**Memory limit: 512 MB**

Constraints

$1 \le T \le 100$

$1 \le N, M \le 5000$

$1 \le N_i, M_i \le 10000$

Time limit: 1 sec	**G. Hey Bro, Side Please**	**Memory limit: 512 MB**

The city campus of City University is amazing. It has a lift. Sometimes boys manage to get into the lift. Then sometimes some beautiful girls say "Hey bro, let me get in, please, please, please. You are very cute. Please vaiya". Then some stupid boys get impressed and girls say "Thank you vaiya, you are so sweet". But some boys don't give it any crap.

Now you are assigned to calculate how many people are standing in front of the lift door from floor X to floor Y (as you have no job :p :D :v).

Input Format

Input will consist of several lines. The first line will contain **T**, which is the number of test cases. Each test case will contain **N** (floors), then **N** lines

follow. Each line will contain **P** where **P** means number of people standing before lift door. Then the input will be **Q** which is the number of queries.

Each query will contain X and Y.

Constraints

$1 \le T \le 10$

$1 \le N \le 50$

$1 \le N_i \le 100$

Output Format

Print "**Case A:** " (A is the case number. Then total number of people standing in front of floor X_i to floor Y_i. Print a newline after output of each

query.

Samples:

1	Case 1: 15
6	
2	
3	
4	
5	
6	
7	
1	
3 5	

Time limit: 1 sec	**H. Amader Bivag chai (Easy)**	**Memory limit: 512 MB**

Futan is a rich country and Krakula is a district in this country. People of Krakula were very unhappy because of not having the "Bivag" tag. So they conducted some online activities (saying "**Amader Bivag chai, Krakula Bivag chai**") with a view to attracting govt. for taking some steps. As Krakula was a large district and because of some other facts it deserves to be declared as a "Bivag". So now govt. is thinking about not only Krakula but also some other big cities. They collect some data. There each city/district is addressed as a **number**. Like Krakula is 1, Somekula is 2, Aulakula is 3 and so on.

Now you will be given the city number (they may appear more than once) and population of a part of it.

You have to print total number of population for every city.

Input Format

Input will consist of several lines. The first line will contain **T**, which is the number of test cases. Each test case will contain **C** (Number of cities), **Q** (Number of different locations), Q lines follow. Each line will contain X and Y where X means a city and Y means population of a part of X.

Constraints

$1 \leq T \leq 10$

$1 \leq C, Q \leq 50$

$1 \leq C_i, Q_i \leq 100$

Output Format

Print "Case A:" (A is the case number) then a newline and then **C** lines, each of the C_i lines will contain I (city number) and then total number of people. See samples for clarification.

Samples:

1 3 6 1 10 2 50 3 15 1 20 3 15 2 25	Case 1: 1 : 30 people 2 : 75 people 3 : 30 people

Time limit: 1 sec	I. Amader Bivag chai (Easy-Medium)	Memory limit: 1 GB

Constraints

$1 \leq T \leq 10$

$1 \leq C \leq 2^{63}$

$1 \leq Q \leq 50$

$1 \leq C_i, Q_i \leq 100$

Time limit: 1 sec	J. The Tank of Katappa	Memory limit: 1 GB

There was a hue and cry among people about Katappa's stand on Bahubali. People were confused and asking each other "why Katappa, why?" as he said he had killed Bahubali. This raised a huge problem and the problem was unsolved for years as like as some hard mathematical problems. But everything has come to the light when the world watched **Bahubali 2**. Now Bahubali's son and Katappa made some interesting plans about an ongoing war. They will fight together. The plan is, Katappa will use a tank which has **2 main-guns** to fire. This is fixed and can't move.

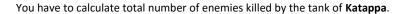The bombs go **diagonally** towards **right side** and can go infinite miles.

The battlefield is an **N*M** matrix in shape.

The matrix is filled with uppercase Latin letters (A, B, C … Z).

Where **A = 1, B = 2, C = 3 ……... Z = 26**.

Each letter represents a group and each group has equal number of armies of the value of the group name. That means, if **C** is a group, it has **3** armies in it.

And when one of the main-guns fires, it kills all the groups in its path.

You have to calculate total number of enemies killed by the tank of **Katappa**.

Input Format

Input consists of an integer **T** number of test cases, **N** and **M** (size of the battle field **B**), **I, J** (**B[I][J]** is the position of the tank), and then N lines of strings of length M.

Constraints

1 ≤ **T** <20

0 < **N, M** < 1000

0 ≤ I**, J** ≤ 999

Output Format

For each test case, print "Case x ; S" in a single line (without quotes), where x is the case number and S is the answer.

Samples:

1 5 4 1 0 AECD EFGH IJKL MNOP QRST	Case 1 ; 50

****

[Entertainment and some current national issues were considered during the preparation of this problem set. There is nothing to take personally. It's for your learning and enjoyment. We care about your wisdom. We love you. So, cheers]

And

Good luck!

Love from City Campus

(Especially from CUPC)

A hard math !!!

Phungshuk Wangdu a great scientist of Japan, you may have seen him in the movie
3 IDIOT. You know that he can calculate fast but the problem is he can not
calculate the hard math which is given below-
* Suppose you are given quantity (number of product) of product P
* And you are given the price of one single product D
You have to calculate how much it costs to buy the product. Like if you have 2
product and the price of one single product is 30. So you need 60 BDT to buy
these products.see samples for more clarification.

Input: Three integers T number of test cases, P product quantity and D price of
one single product.
Output: You have to print the cost to buy the products.

Sample Input:

2
2 3
3 40

Sample Output:
6
120