

Professor Farouk Question

Professor farouk asked his students to create a variable of type integer and let it equal to 2147483647 then asked them to add 1 for this variable they found that the answer like that - 2147483648 while it should be 2147483648. One of students said that we can use long and other said we can use Big Integer in java, but for sure professor farouk know all this things but he wanted to ask what will you do if there's no data type can have your result ?

one of students gave the best answer he said we can add multi-digit numbers from right-to-left one digit at a time and print the result. for sure by using this way he will find a carry for example

```
1234
  +
5678
-----
```

6912

$4+8=2$ and carry 1

carry+3+7=carry 1

carry+2+6=9 carry 0

carry+1+5=6

Your job is to create a program that count the number of carry operations.

Input

Each line of input contains two unsigned integers less than 10 digits. The last line of input contains '0 0'.

Output

For each line of input except the last you should compute and print the number of carry operations that would result from adding the two numbers, in the format shown below.

Example

```
Input:
123 456
555 555
123 594
0 0
```

```
Output:
No carry operation.
3 carry operations.
1 carry operation.
```

