

110501 Primary Arithmetic

Children are taught to add multi-digit numbers from right to left, one digit at a time. Many find the “carry” operation, where a 1 is carried from one digit position to the next, to be a significant challenge. Your job is to count the number of carry operations for each of a set of addition problems so that educators may assess their difficulty.

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, compute the number of carry operations that result from adding the two numbers and print them in the format shown below.

Sample Input

```
123 456
555 555
123 594
0 0
```

Sample Output

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