

## Count zeroes in C++

```
#include <iostream>
using namespace std;

int cnt = 0;

int countZerosRec(int input) {
    // Base case for initial input of 0
    if (input == 0 && cnt == 0) {
        return 1;
    }

    // Base case for recursion
    if (input == 0) {
        return cnt;
    }

    // Check if the current last digit is zero
    if (input % 10 == 0) {
        cnt++;
    }

    // Recursive call to process the next digit
    return countZerosRec(input / 10);
}

int main() {
    cout << countZerosRec(10034) << endl;
    return 0;
}
```

### Dry Run for countZerosRec(10034)

Call	input	input % 10	is zero?	sum
countZerosRec(10034)	10034	4	✗	0 + next
countZerosRec(1003)	1003	3	✗	0 + next
countZerosRec(100)	100	0	✓	1 + next
countZerosRec(10)	10	0	✓	1 + next
countZerosRec(1)	1	-	✗	0

→ Total = 1 + 1 = **2**

Output:-

2