

Number of Digit One (/problems/number-of-digit-one/)

Submission Detail

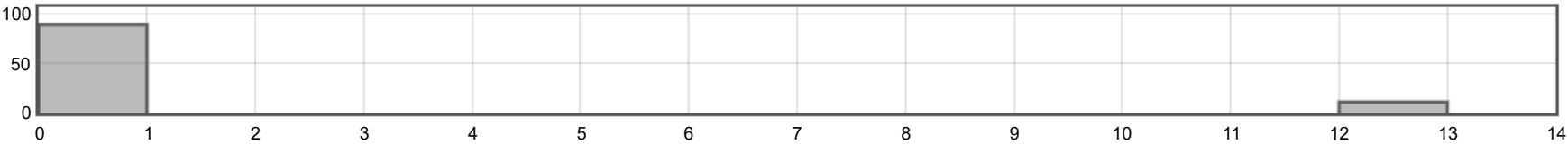
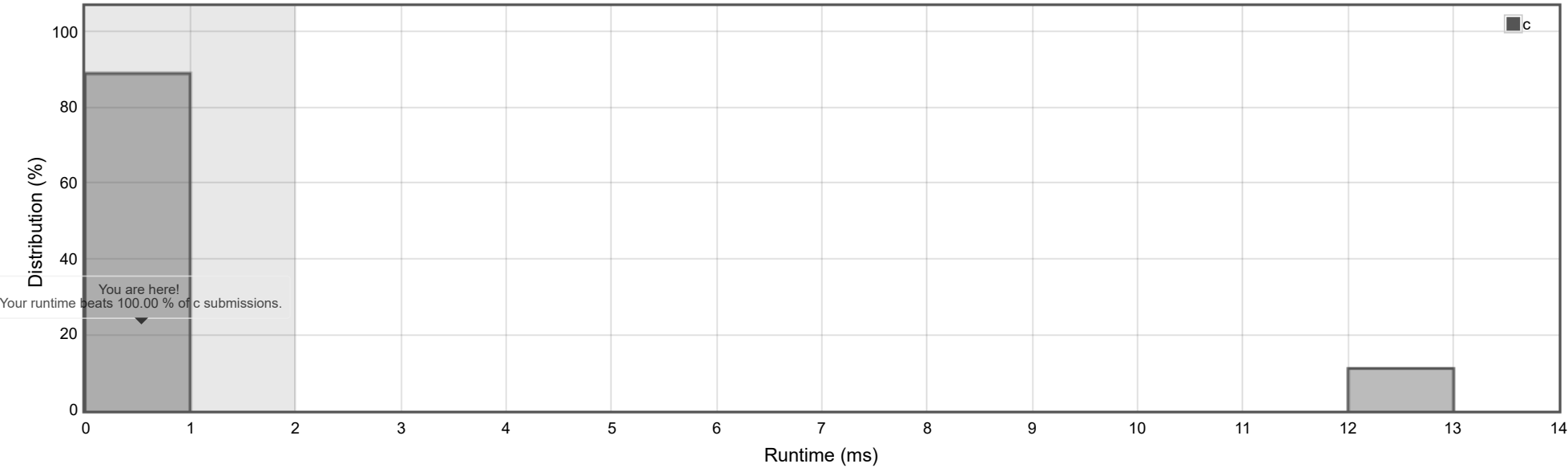
40 / 40 test cases passed.

Runtime: 0 ms

Status: Accepted

Submitted: 1 hour, 13 minutes ago

Accepted Solutions Runtime Distribution



Zoom area by dragging across this chart

Invite friends to challenge **Number of Digit One**

Submitted Code: 1 hour, 13 minutes ago

Language: c

[Edit Code](#)

```
1 int countDigitOne(int n) {
2     if (n <= 0)
3         return 0;
4     int ndigits = 0;
5     int num = n;
6     while (num) {
7         ndigits++;
8         num /= 10;
9     }
10    int digits[ndigits];
11    int nums[ndigits];
12    for (int i = 0; i < ndigits; i++) {
13        digits[i] = n % 10;
14        nums[i] = digits[0];
15        for (int j = 1; j <= i; j++)
16            nums[i] += digits[j] * pow(10, j);
17        n /= 10;
18    }
19    int DP[ndigits], nines[ndigits + 1];
20    DP[0] = digits[0] != 0;
21    nines[0] = 0;
22    for (int i = 1; i < ndigits; i++) {
23        nines[i] = nines[i - 1] * 10 + pow(10, i - 1);
24        if (digits[i] == 0)
25            DP[i] = DP[i - 1];
26        else if (digits[i] == 1)
27            DP[i] = DP[i - 1] + nums[i - 1] + 1 + nines[i];
28        else
29            DP[i] = DP[i - 1] + nines[i] * digits[i] + pow(10, i);
30    }
31    return DP[ndigits - 1];
32 }
```

[Back to problem \(/problems/number-of-digit-one/\)](/problems/number-of-digit-one/)