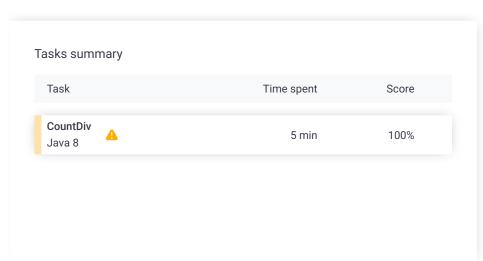
Codility_

Candidate Report: trainingP3NARR-9XS

Test Name:

Summary

Timeline





Check out Codility training tasks

Tasks Details

Medium

1. CountDiv

Compute number of integers divisible by k in range [a..b].



Task description

Write a function:

class Solution { public int solution(int A, int B, int K); } $\mbox{\footnote{A}}$

that, given three integers A, B and K, returns the number of integers within the range [A..B] that are divisible by K, i.e.:

$$\{ i : A \le i \le B, i \mod K = 0 \}$$

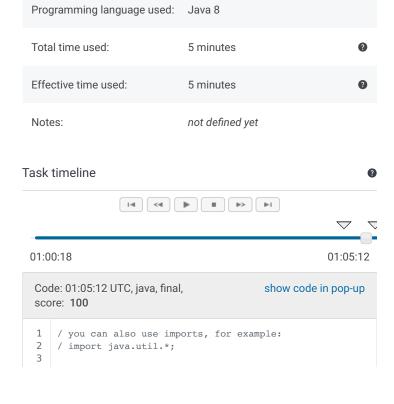
For example, for A = 6, B = 11 and K = 2, your function should return 3, because there are three numbers divisible by 2 within the range [6..11], namely 6, 8 and 10.

Write an efficient algorithm for the following assumptions:

- A and B are integers within the range [0..2,000,000,000];
- K is an integer within the range [1..2,000,000,000];
- A ≤ B.

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Solution



```
4
    / you can write to stdout for debugging purposes, e.g.
5
    / System.out.println("this is a debug message");
6
    lass Solution {
8
       public int solution(int A, int B, int K) {
9
           // write your code in Java SE 8
10
11
           return ((int)(Math.floor(B/K) - Math.floor(A/K)
12
       }
13
```

Analysis summary

▶ big_values2

big_values3

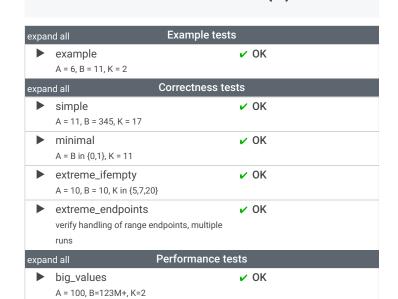
big_values4
A, B, K in {1,MAXINT}

A = 101, B = 123M+, K = 10K

A = 0, B = MAXINT, K in {1,MAXINT}

The solution obtained perfect score.

Analysis



✓ OK

✓ OK

✓ OK

Detected time complexity: O(1)

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