Codility_

CodeCheck Report: trainingR9XN44-ET5

Test Name:

Check out Codility training tasks

Summary Timeline

Tasks summary

Task	Time spent	Score
FrogJmp JavaScript ⚠	3 min	100%

Total score

100%

Tasks Details

Easy

1. FrogJmp
Count minimal number of jumps from position X to Y.

Task Score	Correctness	Performance
100%	100%	100%

Task description

A small frog wants to get to the other side of the road. The frog is currently located at position X and wants to get to a position greater than or equal to Y. The small frog always jumps a fixed distance, D.

Count the minimal number of jumps that the small frog must perform to reach its target.

Write a function:

```
function solution(X, Y, D);
```

that, given three integers X, Y and D, returns the minimal number of jumps from position X to a position equal to or greater than Y.

For example, given:

```
X = 10
Y = 85
D = 30
```

the function should return 3, because the frog will be positioned as follows:

- after the first jump, at position 10 + 30 = 40
- after the second jump, at position 10 + 30 + 30 = 70
- after the third jump, at position 10 + 30 + 30 + 30 = 100

Write an **efficient** algorithm for the following assumptions:

- X, Y and D are integers within the range [1..1,000,000,000];
- X ≤ Y.

Solution

Programming language used:	JavaScript
Total time used:	3 minutes
Effective time used:	3 minutes
Notes:	*not defined yet*

Task timeline

13:09:02 13:11:17

Code: 13:11:16 UTC, js, final, score: 100

show code in pop-up

```
// you can write to stdout for debugging purposes, e.g.
// console.log('this is a debug message');

function solution(X, Y, D) {
    // write your code in JavaScript (Node.js 8.9.4)
    if(X>=Y) return 0;
    return Math.ceil((Y-X)*10/(D*10));
}
```

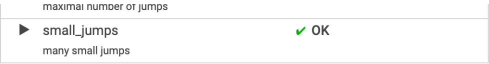
Analysis summary

The solution obtained perfect score.

Analysis

Detected time complexity: O(1)

expand all	Example tests	
▶	example example test	✔ OK
expand all	**Correctness tests**	
▶	simple1 simple test	✔ OK
▶	simple2	✔ OK
▶	extreme_position no jump needed	✔ OK
▶	small_extreme_jump one big jump	✔ OK
expand all	**Performance tests**	
▶	many_jump1 many jumps, D = 2	✔ OK
▶	many_jump2 many jumps, D = 99	✔ OK
▶	many_jump3 many jumps, D = 1283	✔ OK
▶	big_extreme_jump maximal number of jumps	✔ OK



maximal number of jumps

▶ small_jumps ✔ OK

many small jumps