Codility_

CodeCheck Report: trainingSW5MJU-YAA

Test Name:

Check out Codility training tasks

Summary | Timeline

Tasks summary

Task	Time spent	Score
FrogJmp ⚠ Python	4 min	100%

Total score

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:

```
def 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

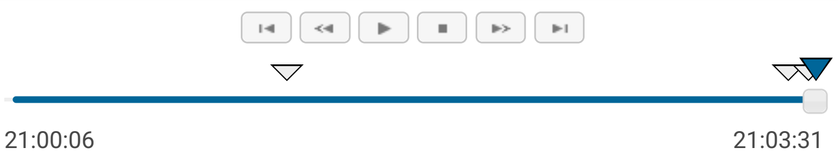
Write an **efficient** algorithm for the following assumptions:

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

Solution

Programming language used:	Python
Total time used:	4 minutes
Effective time used:	4 minutes
Notes:	*not defined yet*

Task timeline



Code: 21:03:31 UTC, py, final, score: **100**

show code in pop-up

```
1  # you can write to stdout for debugging purposes, e.g.
2  # print("this is a debug message")
3
4  def solution(X, Y, D):
5      # write your code in Python 3.6
6      if (Y-X)//D < (Y-X)/D:
7          return (Y-X)//D+1
8      else:
9          return (Y-X)//D
```

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
▶	small_jumps many small jumps	✔ OK