

AVAILABLE
LESSONS:*Lesson 1*
Iterations*Lesson 2*
Arrays*Lesson 3*
**Time
Complexity***Lesson 4*
Counting
Elements*Lesson 5*
Prefix Sums*Lesson 6*
Sorting*Lesson 7*
Stacks and
Queues*Lesson 8*
Leader*Lesson 9*
Maximum slice
problem*Lesson 10*
Prime and
composite
numbers

PAINLESS

FrogJump

START

Count minimal number of jumps from position X to Y.

Programming language: C++ ▼

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:

```
int solution(int X, int Y, int 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 $10 + 30 + 30 + 30 = 100$

Assume that:

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

Lesson 11

Sieve of
Eratosthenes

Lesson 12

Euclidean
algorithm

Lesson 13

Fibonacci
numbers

Lesson 14

Binary search
algorithm

Lesson 15

Caterpillar
method

Lesson 16

Greedy
algorithms

Lesson 17

Dynamic
programming

Lesson 90

Tasks from
Indeed Prime
2016 challenge

Lesson 99

Future training

Complexity:

- expected worst-case time complexity is $O(1)$;
- expected worst-case space complexity is $O(1)$.

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