

BACK

depositProfit



DESCRIPTION

SOLUTIONS 9584

COMMENTS 41



CODEWRITING

SCORE: 300/300

You have deposited a specific amount of dollars into your bank account. Each year your balance increases at the same growth `rate`. Find out how long it would take for your balance to pass a specific `threshold` with the assumption that you don't make any additional deposits.

Example

For `deposit = 100`, `rate = 20` and `threshold = 170`, the output should be
`depositProfit(deposit, rate, threshold) = 3`.

Each year the amount of money on your account increases by `20%`. It means that throughout the years your balance would be:

- year 0: `100` ;
- year 1: `120` ;
- year 2: `144` ;
- year 3: `172,8` .

Thus, it will take `3` years for your balance to pass the `threshold`, which is the answer.

Input/Output

- **[execution time limit] 4 seconds (js)**
- **[input] integer deposit**

The initial deposit as a positive integer.

Guaranteed constraints:

$1 \leq \text{deposit} \leq 100$.

- **[input] integer rate**

The rate of increase. Each year the balance increases by the `rate percent` of the current sum.

Guaranteed constraints:

$1 \leq \text{rate} \leq 100$.

- **[input] integer threshold**

