

2139. Minimum Moves to Reach Target Score

Description

You are playing a game with integers. You start with the integer `1` and you want to reach the integer `target`.

In one move, you can either:

- **Increment** the current integer by one (i.e., `x = x + 1`).
- **Double** the current integer (i.e., `x = 2 * x`).

You can use the **increment** operation **any** number of times, however, you can only use the **double** operation **at most** `maxDoubles` times.

Given the two integers `target` and `maxDoubles`, return *the minimum number of moves needed to reach* `target` *starting with* `1`.

Example 1:

Input: target = 5, maxDoubles = 0
Output: 4
Explanation: Keep incrementing by 1 until you reach target.

Example 2:

Input: target = 19, maxDoubles = 2
Output: 7
Explanation: Initially, x = 1
Increment 3 times so x = 4
Double once so x = 8
Increment once so x = 9
Double again so x = 18
Increment once so x = 19

Example 3:

Input: target = 10, maxDoubles = 4
Output: 4
Explanation: Initially, x = 1
Increment once so x = 2
Double once so x = 4
Increment once so x = 5
Double again so x = 10

Constraints:

- `1 <= target <= 109`
- `0 <= maxDoubles <= 100`

