[C] Favorite Scene

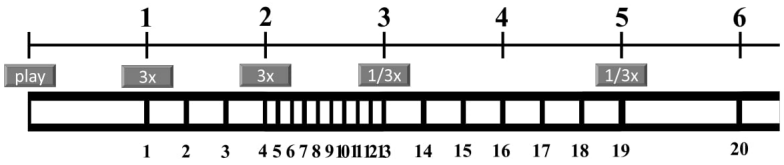
Time limit: 2 second
Memory limit: 65535 kBytes

Description

Your mom often watches old video tapes of her favorite classic movies. She has watched them so many times that she knows the exact starting times of her favorite scenes. Today, she wants to show you one of these scenes. Knowing that the attention span of modern youth is quite short, she wants to fast-forward the tape to the correct moment as quickly as possible.

When the [play] button is pressed, the film starts at normal playback speed (playing 1 second of footage in 1 second of real time). The player has two additional buttons to control playback speed: the [3x] button triples the current speed, while the [1/3x] button reduces it to one third. You can press at most one button per second. Exactly one second after playback begins – and every second thereafter – the player checks for any button presses and updates the playback speed accordingly (either leaving it unchanged, tripling it, or reducing it to one third).

For example, assume that the favorite scene starts at 19 seconds from the start of the film. By pressing the [3x] button in the first and second seconds, and the [1/3x] button in the third and fifth second, the desired scene can be watched at normal speed five seconds after the start.



Your task is to determine the shortest possible time from the start of playback to the beginning of the desired scene. Playback of the desired scene must begin at normal speed.

Input

The input is a single line with an integer T – the start time of the favourite scene.

Output

Print the minimum possible time (in seconds) before you can start watching the target scene at normal speed.

Constraints

- $0 \leq T < 2^{50}$

Example

Input	Output
19	5
123456789098765	85
3	3
4	2