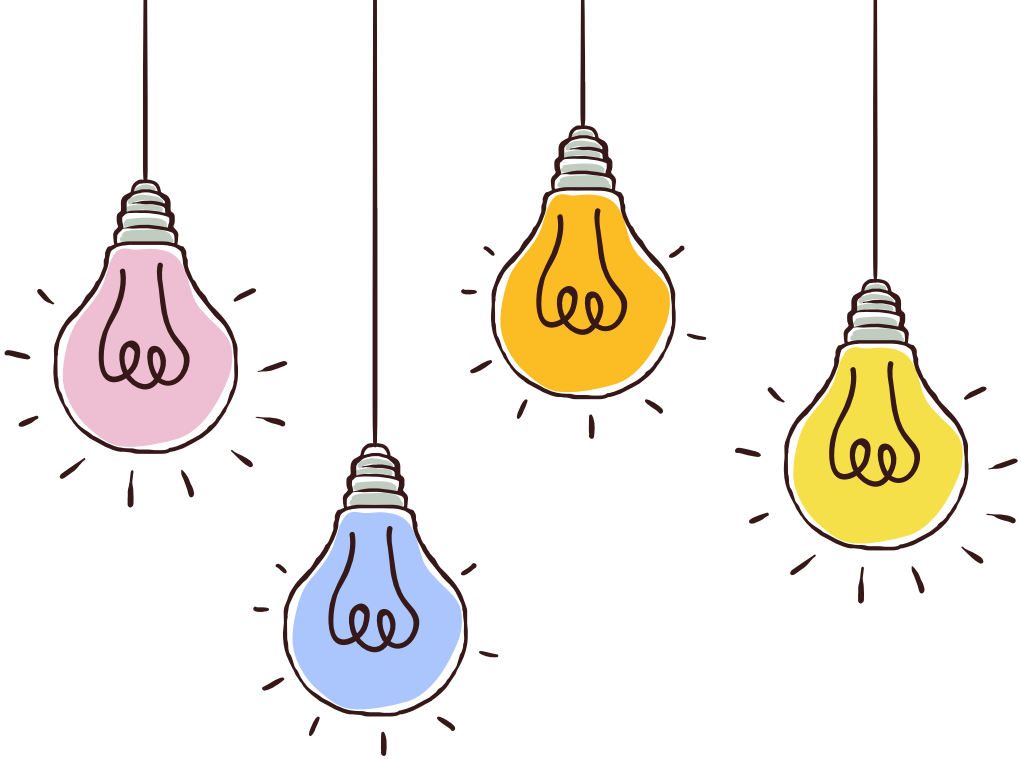


Dynamic Programming

21102054	Lim Saeyeon
22102005	Oh Huijin
22101993	Kim Eunyeol
22102010	Lee Chanhaeng
19102100	Choi Jiwoo

Problem

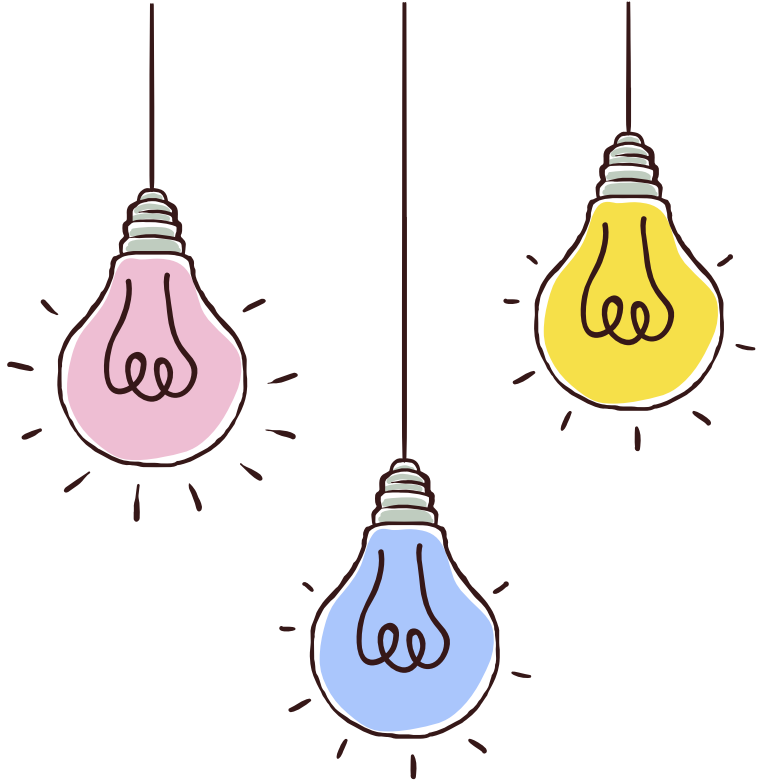
Electricity from transmission towers to household bulbs requires several voltage conversions due to electronic devices' inability to handle high voltages.

Multiple transformers along the way, from the tower to household wiring and bulbs, adjust the voltage to ensure electronic devices' safety. Given the high voltage from transmission towers, multiple transformers are needed to reach the bulb's suitable voltage.

Let's determine the **minimum number of transformers needed to achieve the bulb's desired voltage (= 1V)**.

Multiple Options

The **available register options** for an **voltage V** are as follows:



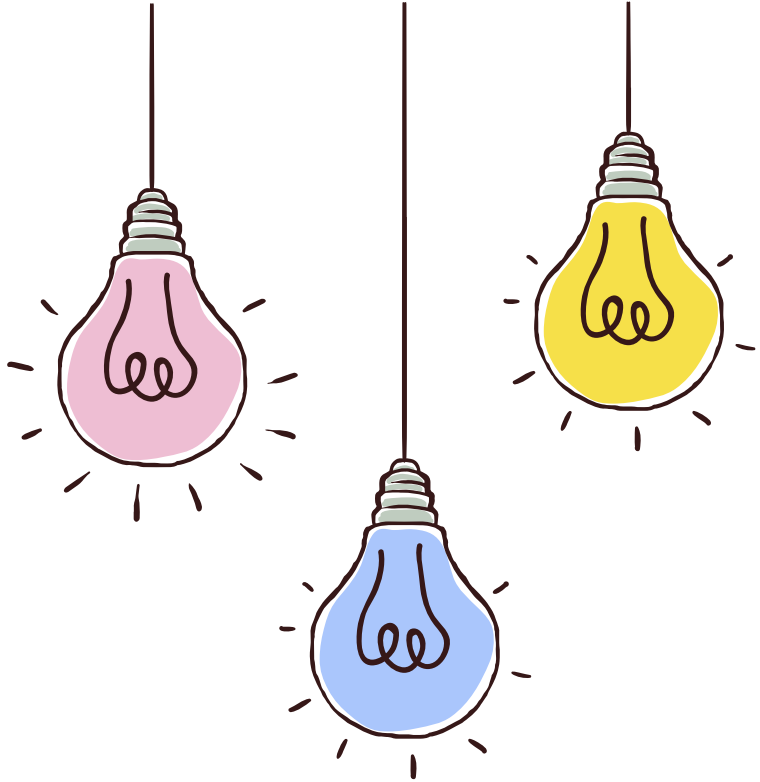
1. Divide by 3
2. Divide by 2
3. Subtract 1 from V

Given an voltage V, **find the minimum number of transformers needed to make Voltage V equal to 1** by using 3 options.

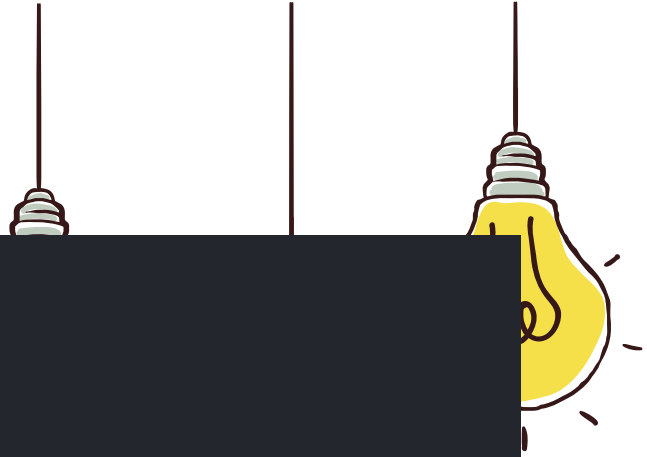
Example case

input : 53 | result : 7

53 - 1 = 52
↓
52 / 2 = 26
↓
26 / 2 = 13
↓
13 - 1 = 12
↓
12 / 3 = 4
↓
4 /2 = 2
↓
2 /2 = 1



Problem



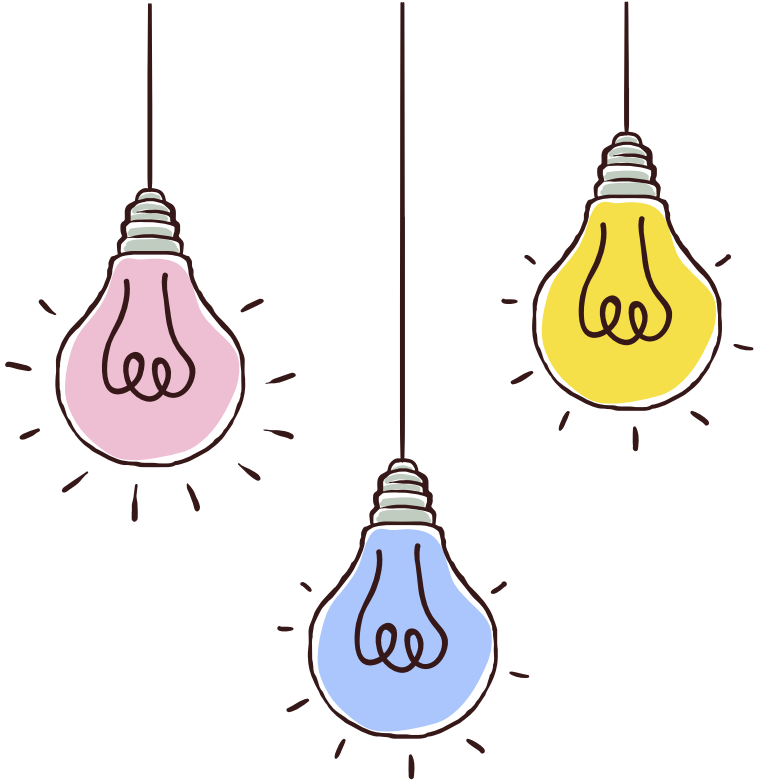
```java
import java.util.Scanner;
public class OneRegister {
    static int N;
    public static void main(String[] args) {
        Solution register = new Solution();
        Scanner scanner = new Scanner(System.in);
        N = scanner.nextInt();

        System.out.println("Minimum number of registers:" + register.countRegisters(N));
    }

}
```

Code Source

SCAN ME



Thank you!