Lab 10B: Fan Dance Combinations

Problem Description

In the SUSTech Traditional Culture Club, students are performing a **modern fan dance** inspired by Korean heritage. The dance begins with **n dancers**, each holding **one fan**. The entire performance lasts for **m seconds**.

During each second, dancers may pass some or all of their fans to the adjacent person (left or right), or keep them. They can also receive fans from adjacent neighbors. A fan received in the current second **cannot** be passed on again in the same second.

Each dancer may hold any number of fans, including none.

Objective

Determine the number of **distinct final configurations** (i.e., how many fans each dancer ends up with), modulo **99824353**.

Two configurations are considered different if at least one dancer ends up with a different number of fans.

Input Format

- A single line with two integers: **n** (number of dancers), **m** (duration in seconds)

Output Format

- One integer: the number of possible configurations after m seconds, modulo **99824353**

Samples

Sample Input 1

```
3 5
```

Sample Output 1

```
10
```

Sample Input 2

```
100 5
```

Sample Output 2

```
9447126
```

Constraints

- For 10% of the data: `n, m <= 3`
- For 40% of the data: `n, m <= 10`
- For 100% of the data: `n, m <= 100`