7 Last Digit of the Sum of Fibonacci Numbers Again

Problem Introduction

Now, we would like to find the last digit of a *partial* sum of Fibonacci numbers: $F_m + F_{m+1} + \cdots + F_n$.

Problem Description

Task. Given two non-negative integers m and n, where $m \leq n$, find the last digit of the sum $F_m + F_{m+1} + \cdots + F_n$.

Input Format. The input consists of two non-negative integers m and n separated by a space.

Constraints. $0 \leq m \leq n \leq 10^{18}$.

Output Format. Output the last digit of $F_m + F_{m+1} + \cdots + F_n$.

Sample 1.

Input:

```
3 7
```

Output:

```
1
```

$F_3 + F_4 + F_5 + F_6 + F_7 = 2 + 3 + 5 + 8 + 13 = 31$.

Sample 2.

Input:

```
10 10
```

Output:

```
5
```

$F_{10} = 55$.

Sample 3.

Input:

```
10 200
```

Output:

```
2
```

$F_{10} + F_{11} + \cdots + F_{200} = 734\,544\,867\,157\,818\,093\,234\,908\,902\,110\,449\,296\,423\,262$

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