# Problem 1
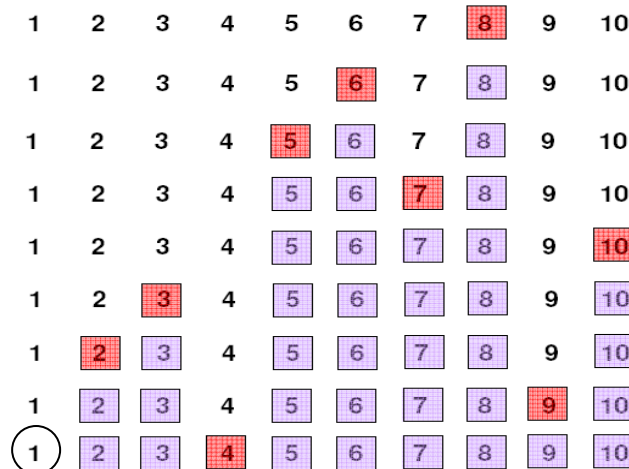# Josephus Problem

A group of n people are standing in a circle, numbered consecutively clockwise from 1 to n. Starting from person 1, the $m^{th}$ person must leave the circle. Whoever's left at the end is called the "winner". Write a program to find the winner given n and m.

The following diagram illustrates how it works:



### Input

Input will be a filename containing one pair of n and m per line.

### Output

Acceptable output will consist of all the "winners", each on a new line.

### Sample input

```
file.txt
```

### Sample input file (file.txt)

```
10 8
41 3
4 2
```

### Sample output

```
1
31
1
```