

PROGRAM 1: Josephus Problem

The **Josephus Problem** has gruesome roots, which you can read about on Wikipedia (https://en.wikipedia.org/wiki/Josephus_problem). Meanwhile, think of it as a game of Survivor: everyone sits in a circle and repeatedly votes out the person next to them, making the circle smaller until only one person remains and wins.

The challenge is to figure out: **Who is the last person standing?**

We will also add a few twists (parameters):

- Let n be the number of people in the initial circle (i.e., select the first n people from a list of names as input)
- Let k be the number k -th person to vote out (i.e., skip over $k-1$ people, and vote out the k th person)

We want you to use a **circular linked list** to solve this problem. The output should declare the winner, e.g., "Paea wins!"

Sample input:

```
5
1
Georgia
Jeremiah
Donnell
Clarice
Aurelia
Kristina
Marcy
Lyle
.
```

Note: Since $n=5$, Kristina, Marcy and Lyle are ignored. So it starts with Georgia voting out Jeremiah ($k=1$, i.e., skip $k-1$ or none). Then Donnell votes out Clarice. Next it loops around so that Aurelia votes out Georgia, and finally Donnell votes out Aurelia. Try it yourself on paper.

Sample output:

```
Donnell wins!
```

Note: in our version of this game, it is possible for a player to vote themselves out. (That's not exactly how the real Josephus Problem works.)