```c
1  //
2  // Created by hfwei on 2023/12/20.
3  //
4
5  #include <stdio.h>
6  #include <assert.h>
7  #include "ll/ll.h"
8
9  #define NUM 10
10
11 void SitAroundCircle(LinkedList *list, int num);
12 void KillUntilOne(LinkedList *list);
13 int GetSurvivor(const LinkedList *list);
14
15 int main(void) {
16   printf("I hate the Josephus game!\n");
17
18   LinkedList list;
19   Init(&list);
20
21   SitAroundCircle(&list, NUM);
22   // Print(&list);
23
24   KillUntilOne(&list);
25   int survivor = GetSurvivor(&list);
26   printf("%d : %d\n", NUM, survivor);
27
28   Free(&list);
29
30   return 0;
31 }
32
33 void SitAroundCircle(LinkedList *list, int num) {
34   for (int i = 1; i <= num; i++) {
35     Append(list, i);
36   }
37 }
38
39 void KillUntilOne(LinkedList *list) {
40   Node *node = list->head;
41
42   while (!IsSingleton(list)) {
43     // use node to delete node->next
44     Delete(list, node);
45     node = node->next;
46   }
47 }
48
49 int GetSurvivor(const LinkedList *list) {
50   assert(IsSingleton(list));
51
52   return GetHeadVal(list);
53 }
```