CSES Problem Set

Josephus Problem II

Time limit: 1.00 s **Memory limit:** 512 MB

Consider a game where there are n children (numbered $1, 2, \ldots, n$) in a circle. During the game, repeatedly k children are skipped and one child is removed from the circle. In which order will the children be removed?

Input

The only input line has two integers n and k.

Output

Print n integers: the removal order.

Constraints

- $1 \le n \le 2 \cdot 10^5$
- $0 \le k \le 10^9$

Example

Input:
```
7 2
```

Output:
```
3 6 2 7 5 1 4
```

Sorting and Searching

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Towers ×
Traffic Lights -
Josephus Problem I -
Josephus Problem II -
Nested Ranges Check -
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Factory Machines -
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Your submissions