

Challenge14.1 A Perfect Permutation

A *permutation* is a sequence of integers p_1, p_2, \dots, p_n , consisting of n distinct positive integers, each of them doesn't exceed n . Let's denote the i -th element of permutation p as p_i . We'll call number n the size of permutation p_1, p_2, \dots, p_n .

Nickolas adores permutations. He likes some permutations more than the others. He calls such permutations perfect.

A *perfect* permutation is such permutation p that for any i ($1 \leq i \leq n$) (n is the permutation size) the following equations hold $p_{p_i} = i$ and $p_i \neq i$. Nickolas asks you to print any perfect permutation of size n for the given n .

Input

A single line contains a single integer n ($1 \leq n \leq 100$) — the permutation size.

Output

If a perfect permutation of size n doesn't exist, print a single integer -1. Otherwise print n distinct integers from 1 to n , p_1, p_2, \dots, p_n — permutation p , that is perfect. Separate printed numbers by whitespaces

Examples

input
1
output
-1
input
2
output
2 1
input
4
output
2 1 4 3