



Problem M

Triple Fairness

Time Limit: 1 Second

This problem adopts exactly the same definition of *Fair Problemset* as Problem H, “Fair Problemset”.

ICPC is a team competition. Each team has three members. At the beginning of a contest, most teams divide the $3n$ problem evenly. They use one of two common methods to distribute problems:

1. **Sequential Distribution:** Each member takes a contiguous block of n problems from the set of $3n$ problems. Specifically, the first member takes problems $1, \dots, n$, the second member takes problems $n + 1, \dots, 2n$, and the third member takes problems $2n + 1, \dots, 3n$.
2. **Jump Distribution:** Each member takes problems with indices that have the same remainder when divided by 3 from the set of $3n$ problems. Specifically, the first member takes problems $1, 4, 7, \dots, 3n - 2$, the second member takes problems $2, 5, 8, \dots, 3n - 1$, and the third member takes problems $3, 6, 9, \dots, 3n$.

The ICPC Seoul Regional Contest Scientific Committee must prepare a problemset consisting of $3n$ problems. The difficulty of each problem is represented by an integer from 1 to n , inclusive. For each difficulty, there are exactly three problems with that difficulty. Thus, the arrangement of difficulties in the problemset can be viewed as a *difficulty sequence* of length $3n$ containing three problems of each of the n difficulty levels.

To prevent any advantage or disadvantage for a team based on their chosen problem distribution method, the ICPC Seoul Regional Contest Scientific Committee has defined a standard called a *Fair Problemset*. A difficulty sequence of length $3n$ is called a Fair Problemset if it satisfies both of the following conditions:

1. **Sequential Distribution Fairness:** When using Sequential Distribution, for every difficulty level i ($1 \leq i \leq n$), each of the three members receives exactly one problem with difficulty i .
2. **Jump Distribution Fairness:** When using Jump Distribution, for every difficulty level i ($1 \leq i \leq n$), each of the three members receives exactly one problem with difficulty i .

In other words, regardless of which of the two methods is chosen, each team member must be assigned exactly one problem for each difficulty level from 1 to n , inclusive.

Given a positive integer n , write a program to find **any** Fair Problemset sequence of length $3n$.

Input

Your program is to read from standard input. The input consists of exactly one line. The line contains an integer n ($1 \leq n \leq 200$; n is **not** divisible by 3). It can be shown that for every valid input, there exists at least one Fair Problemset sequence of length $3n$.

Output

Your program is to write to standard output. Print exactly one line consisting of $3n$ space-separated positive integers, representing a Fair Problemset sequence of length $3n$. Any valid Fair Problemset sequence of length $3n$ will be accepted.

The following shows sample input and output for two test cases.

Sample Input 1	Output for the Sample Input 1
2	1 2 1 2 1 2
Sample Input 2	Output for the Sample Input 2
4	1 2 3 4 1 4 2 3 1 3 4 2