

Integer Triple

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 512 megabytes

Given an integer n , find three integers a, b, c satisfying

- $|a|, |b|, |c| \leq 10^{18}$;
- $n = ab(a + b) + bc(b + c) + ac(a + c)$.

If no such triple of integers exists, report that there is no solution.

Input

The input contains one integer n ($0 \leq n \leq 10^{18}$).

Output

If there is no solution, output -1 . Otherwise, output three integers a, b, c that satisfy all the requirements.

If there are multiple valid answers, output any one of them.

Examples

standard input	standard output
3	-1
6	1 1 1