C. Vladik and fractions

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Vladik and Chloe decided to determine who of them is better at math. Vladik claimed that for any positive integer n he can represent fraction as a sum of three distinct positive fractions in form .

Help Vladik with that, i.e for a given n find three distinct positive integers x, y and z such that . Because Chloe can't check Vladik's answer if the numbers are large, he asks you to print numbers not exceeding 10^9.

If there is no such answer, print `-1`.

Input

The single line contains single integer n ($1 \le n \le 10^4$).

Output

If the answer exists, print 3 distinct numbers x, y and z ($1 \le x, y, z \le 10^9$, $x \ne y$, $x \ne z$, $y \ne z$). Otherwise print `-1`.

If there are multiple answers, print any of them.

Examples

input
3

output
2 7 42

input
7

output
7 8 56