

B. Chilly Willy

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Chilly Willy loves playing with numbers. He only knows prime numbers that are digits yet. These numbers are 2, 3, 5 and 7. But Willy grew rather bored of such numbers, so he came up with a few games that were connected with them.

Chilly Willy wants to find the minimum number of length n , such that it is simultaneously divisible by all numbers Willy already knows (2, 3, 5 and 7). Help him with that.

A number's length is the number of digits in its decimal representation without leading zeros.

Input

A single input line contains a single integer n ($1 \leq n \leq 10^5$).

Output

Print a single integer — the answer to the problem without leading zeroes, or "-1" (without the quotes), if the number that meet the problem condition does not exist.

Examples

input
1
output
-1

input
5
output
10080