

A. PolandBall and Hypothesis

Time limit: 2s

Memory limit: 256 MB

PolandBall is a young, clever Ball. He is interested in prime numbers. He has stated a following hypothesis: "There exists such a positive integer n that for each positive integer m number $n \cdot m + 1$ is a prime number".

Unfortunately, PolandBall is not experienced yet and doesn't know that his hypothesis is incorrect. Could you prove it wrong? Write a program that finds a counterexample for any n .

Input

The only number in the input is n ($1 \leq n \leq 1000$) — number from the PolandBall's hypothesis.

Output

Output such m that $n \cdot m + 1$ is not a prime number. Your answer will be considered correct if you output any suitable m such that $1 \leq m \leq 10^3$. It is guaranteed the the answer exists.

Examples

input
3
output
1

input
4
output
2

Note

A prime number (or a prime) is a natural number greater than 1 that has no positive divisors other than 1 and itself.

For the first sample testcase, $3 \cdot 1 + 1 = 4$. We can output 1.

In the second sample testcase, $4 \cdot 1 + 1 = 5$. We cannot output 1 because 5 is prime. However, $m = 2$ is okay since $4 \cdot 2 + 1 = 9$, which is not a prime number.