Greatest Divisor (Version 3)

Input file:	standard input
Output file:	standard output
Time limit:	2 seconds
Memory limit:	256 megabytes

You are given an integer n, you have to find its greatest divisor that is **different than** n.

Input

A single line containing a positive integer $2 \leq n \leq 10^{12}$.

Output

The greatest divisor d of n, where $d \neq n$.

Example

standard input	standard output
100	50

Note

Divisors of 100 are $1, 2, 4, 5, 10, 20, 25, 50$ *and* 100 the greatest of them that is different than 100 is 50.