

Math Homework

Time Limit: 1.0s **Memory Limit:** 256M

Sinanto and BiciBico are struggling to do their math homework. Guys are given a positive integer number \mathbf{N} and they need to count the number of positive integers \mathbf{X} such that:

- $X < \mathbf{N}$,
- X is not a divisor of \mathbf{N} ,
- X is a divisor of \mathbf{N}^2 .

Could you please help BiciBico and Sinanto to finish their assignment?

Input

Integer number \mathbf{N}

Output

The number of positive integers \mathbf{X}

Constraints

- $1 \leq \mathbf{N} \leq 10^{12}$

Example

Input:

6

Output:

1

Notes

In the example, the only number \mathbf{X} is 4 which is a divisor of 36 but is not a divisor of 6.