Product Divisible by Sum

Time Limit: 1.5s **Memory Limit:** 256M

Let $f(n)$ denote the number of positive integers x such that $n + x$ divides $n \cdot x$.

For a given positive integer n, calculate the sum of $f(i)$'s for each positive integer i from 1 to n, that is, $f(1) + f(2) + \cdots + f(n)$.

Input

The only line contains one integer, n.

- $1 \leq n \leq 10^5$

Output

Print $f(1) + f(2) + \cdots + f(n)$.

Example

Input 1:

```
1
```

Output 1:

```
0
```

Input 2:

```
6
```

Output 2:

```
9
```

Explanation

Input 1: For any positive integer x, $1 \cdot x$ is smaller than $1 + x$. Thus, $f(1) = 0$.

Input 2:

- $f(1) = 0$
- $f(2) = 1 \quad (x = 2)$
- $f(3) = 1 \quad (x = 6)$
- $f(4) = 2 \quad (x = 4, 12)$
- $f(5) = 1 \quad (x = 20)$
- $f(6) = 4 \quad (x = 3, 6, 12, 30)$