

Floor Arithmetics

Given **N**, calculate

$$\sum_{i=1}^N \left\lfloor \frac{N}{i} \right\rfloor$$

i.e. the sum of all **N** divided by **i**, **rounded down**, for all **i** from **1** to **N**.

Input

A positive integer **N** ($N \leq 10^{12}$).

Output

The sum of all **N** divided by **i**, **rounded down**, for all **i** from **1** to **N**.

Example

Input:

4

Output:

8

Input:

10

Output:

27

Input:

32

Output:

119