

Factor Fusion

time limit per test: 0.5 seconds
memory limit per test: 976.6 megabytes
input: standard input
output: standard output

points: 100 · problem code: factorfusion · author: kahootist

Given an integer n , return the sum of all of its unique factors.

Input

Your first line will contain an integer n .

Output

The sum of all unique factors of n .

Constraints

For all test cases:

- $1 \leq n \leq 10^7$

Example 1

Input

```
10
```

Output

```
18
```

Explanation

The factors of 10 are 1, 2, 5, 10. The sum of these factors is 18.

Example 2

Input

```
4
```

Output

```
7
```

Explanation

The factors of 4 are 1, 2, 4. The sum of these factors is 7.

Python Template

```
n = int(input())
```