

Problem G. Factor

Input file: *standard input*
Output file: *standard output*
Time limit: 5 seconds
Memory limit: 1024 mebibytes

Let $\mathbb{F}_x$ be the set of all factors of integer x (recall that positive integer f is a factor of x if x is divisible by f). If for all $1 \leq y \leq x$ there exists a subset of $\mathbb{F}_x$ such that the sum of elements in this subset equals y , then x is considered a good integer.

For example, 6 is good because $\mathbb{F}_6 = \{1, 2, 3, 6\}$ and $4 = 1 + 3$ and $5 = 2 + 3$. 5 is not good because $\mathbb{F}_5 = \{1, 5\}$ and we can't find a subset whose sum equals 2, 3 or 4.

Given an integer n , calculate the number of good integers such that $1 \leq x \leq n$.

Input

There is only one test case in each test file.

The first and only line contains an integer n ($1 \leq n \leq 10^{12}$).

Output

Output one line containing one integer indicating the number of good integers such that $1 \leq x \leq n$.

Examples

standard input	standard output
10	5
20	9
50	17