Prime Generating Integers

Input file:	`standard input`
Output file:	`standard output`
Time limit:	15 seconds
Memory limit:	1024 megabytes

Consider the factors of 30: 1, 2, 3, 5, 6, 10, 15, 30. It can be seen that for every factor (f) of 30, $f + \frac{30}{f}$ is prime.

(A prime number is a whole number greater than 1, whose only two whole-number factors are 1 and itself. The first few prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23, and 29.)

Write a program that asks for a number N as input and then calculates the **sum of all positive integers smaller than or equal to** N, such that for every factor (f) of N, ($f + \frac{N}{f}$) is prime.

Examples

standard input	standard output
6	9
10	19