Special Numbers

Problem Statement

For each positive integer n, denote by d(n) the number of positive divisors of n. A positive integer n is said to be special if there is no k<n with d(k)=d(n). Compute the sum of all special numbers no greater than N.

Input: A single integer N.

Output: A single integer: the sum of all special numbers no greater than N.

Constraints: $1 \leq N \leq 100000$.

Sample Input:
4

Sample Output:
7

Explanation:
3 is not special since d(2)=d(3)=2. 1, 2, and 4 are special, so the answer is 1+2+4=7.