Prime Factors
1 second, 64 MB

Given an integer ***N*** (2<=***N***<=100,000), find the number of distinct prime factors that it has. (That is, find the number of different prime numbers that divide ***N.***)

Input
The first line of the input contains an integer ***N*** (2<=***N***<=100,000).

Output
Your program should output a single integer denoting the number of distinct prime factors of ***N***.

Examples

Input	Output
2	1

Input	Output
16	1

Input	Output
750	3

Input	Output
30030	6

Input	Output
28672	2