Problem : Consecutive Prime Sum

Some prime numbers can be expressed as Sum of other consecutive prime numbers.
For example

5 = 2 + 3
17 = 2 + 3 + 5 + 7
41 = 2 + 3 + 5 + 7 + 11 + 13

Your task is to find out how many prime numbers which satisfy this property are present in the range 3 to N subject to a constraint that summation should always start with number 2.

Write code to find out number of prime numbers that satisfy the above mentioned property in a given range.

Input Format:

First line contains a number N

Output Format:

Print the total number of all such prime numbers which are less than or equal to N.

Constraints:

1. 2<N<=12,000,000,000

Sample Input and Output

SNo.	Input	Output	Comment
1	20	2	(Below 20, there are 2 such numbers: 5 and 17). 5=2+3 17=2+3+5+7
2	15	1	

Note:

Please do not use package and namespace in your code. For object oriented languages your code should be written in one class.

Note:

Participants submitting solutions in C language should not use functions from <conio.h> / <process.h> as these files do not exist in gcc

Note:

For C and C++, return type of main() function should be int.