Problem H
Meryem's Magic

Input : STDIN
Output : STDOUT

In her quest to rule the world, Meryem now has to face the lord of the dark world.
In order to defeat this monster, Meryem must find K prime numbers that sum to the magic number N. Meryem remembered Goldbach's conjecture and thought that it could help her. Your task now is to help her find K primes that sum to N.
Definition of a prime :
A prime number (or prime) is a natural number greater than 1 that has no positive divisors other than 1 and itself
(like 2,3,5,7,11 ...)
Goldbach's conjecture states that any even number (greater than 2) is a sum of two primes :
where n is even and p1 , p2 are two primes. $\forall 2 < n, \exists\, p1, p2 \; such \; that \; p1 + p2 = n$
This conjecture have been proven to hold for any even number (greater than 2) less than 10^{18}
Can you help Meryem find K primes such that their sum = N, or say that they dont exist?

IN The only input will be the magic number N (4 ≤ N ≤ 2500) and K (2 ≤ A ≤ 1000) the number of primes in that order.

OUT Print out K prime numbers that sum to N. or if this is not possible print "impossible" without the quotes.

EX 1	INPUT	OUTPUT
	2036 4	509 509 509 509

NOTE Note that the input method specified in the top of this paper is the standard input(stdin). Use these bits of code according to the programming language you are using to be able to read from the stdin.
C++:

```
int myInteger;
string myString;
cin >> myInteger>> myString; // read an integer then a string
```

Java (use the following Scanner object):

```
Scanner sc = new Scanner(System.in);
int myInteger = sc.nexInt();  // read an integer
String myString = sc.next();  // read a string
sc.close();
```