Problem E
Goldbach's Conjecture

A natural number is called a prime number (or a prime) if it is bigger than 1 and has no divisors other than 1 and itself. For example, 5 is prime, since no number except 1 and 5 divides it. On the other hand, 6 is not a prime since $6=2\times3$.

Goldbach's conjecture is one of the famous unsolved problems in number theory and in all of mathematics. It states: Every even integer greater than 2 can be expressed as the sum of two primes. Such a number is called a Goldbach number. Expressing a given even number as a sum of two primes is called a Goldbach partition of the number. For example, $4=2+2$, $6=3+3$, $8=3+5$, $10=7+3$ or $10=5+5$, $12=5+7$, $14=3+11$ or $14=7+7$. Note that Goldbach partition has been found for any even interger n less than 10000.

Given any even integer n greater than 2, write a program that prints the two primes of the Goldbach partition of n. If there are more than one Goldbach partitions of n, find a partition such that the difference of the two primes of it is minimized.

Input
Your program is to read from standard input. The input consists of T test cases. The number of test cases T is given in the first line of the input. Each test case consists of an even integer n $(4 \leq n \leq 1,000)$.

Output
Your program is to write to standard output. For each test case, find the Goldbach partition as described above, and print its two primes in non-decreasing order with one blank between them.

The following shows sample input and output for two test cases.

Sample Input	Output for the Sample Input
3	3 5
8	5 5
10	5 11
16	