Generating Goldbach - MathGames

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Difficulty: ★★☆☆☆
Key words: Number Theory

Goldbach's Conjecture is a famous conjecture that states that every even number greater than 2 is the sum of two primes. For instance, $4 = 2 + 2$ and $16 = 3 + 13$. Given an even number n greater than 2, can you find two primes that sum to n?

Input

- A single even integer $2 < n < 10^5$, the desired sum.

Output

- Two space-separated primes that sum to n. If there are multiple answers, you may output any one of them.

Examples

Input	Output
6	3 3

Input	Output
16	3 13