

## 459. Repeated Substring Pattern

Given a string  $s$ , check if it can be constructed by taking a substring of it and appending multiple copies of the substring together.

### Example 1:

- **Input:**  $s = \text{"abab"}$
- **Output:** true
- **Explanation:** It is the substring "ab" twice.

### Example 2:

- **Input:**  $s = \text{"aba"}$
- **Output:** false

### Example 3:

- **Input:**  $s = \text{"abcabcabcabc"}$
- **Output:** true
- **Explanation:** It is the substring "abc" four times or the substring "abcabc" twice.

### Constraints:

- $1 \leq s.length \leq 10^4$
- $s$  consists of lowercase English letters.