459. Repeated Substring Pattern

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QuestionEditorial Solution

- Total Accepted: **8495**
- Total Submissions: **21334**
- Difficulty: **Easy**
- Contributors: **YuhanXu**

Given a non-empty string check if it can be constructed by taking a substring of it and appending multiple copies of the substring together. You may assume the given string consists of lowercase English letters only and its length will not exceed 10000.

Example 1:

```
Input: "abab"

Output: True

Explanation: It's the substring "ab" twice.
```

Example 2:

```
Input: "aba"

Output: False
```

```
Input: "abcabcabcabc"

Output: True

Explanation: It's the substring "abc" four times. (And the substring "abcabc" twice.)
```

```cpp
class Solution {
public:
    bool repeatedSubstringPattern(string str) {
        int l = str.size();
        for(int i=l/2;i>=1;i--)
        {
            if(l%i==0)
            {
                int m = l/i;
                string tmp = str.substr(0,i);
```

```cpp
            string res = "";
            for(int j=0;j<m;j++) res+=tmp;
            if(res == str) return true;
        }
    }
    return false;
}
};
```