

Check permutation: Given two strings, check if one is a permutation of the other.

? Are we given a specific string to check against the other, or just compare both?

what is a permutation?

An arrangement of all or part of a set of objects. Order matters!

Example:

ABC

Permutations: BAC, CBA, ACB ... etc.

length also matters. AB is not a permutation of ABC, unless we are specifying permutations of size 2.

given two strings $\left[\begin{array}{l} 1) \text{ must be the same length} \\ 2) \text{ should contain the same characters} \end{array} \right.$

what we can do is sort both strings, iterate through both in one loop to see if each character matches. This would be $O(n)$ time.

Implementation:

```
isPermutation(str1, str2) {  
  if (str1.length !== str2.length) {  
    return false;  
  }  
  sortedStr1 = str1.sort();  
  sortedStr2 = str2.sort();  
  for (let i = 0; i < str1.length; i++) {  
    if (sortedStr1[i] !== sortedStr2[i]) {  
      return false;  
    }  
  }  
  return true;  
}
```