

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(nm) time | O(nm) space - where n is the length of the
4 // first string and m is the length of the second string
5 function interweavingStrings(one, two, three) {
6   if (three.length !== one.length + two.length) {
7     return false;
8   }
9
10  const cache = new Array(one.length + 1).fill(0).map(_ => new Array(
11    return areInterwoven(one, two, three, 0, 0, cache);
12  }
13
14  function areInterwoven(one, two, three, i, j, cache) {
15    if (cache[i][j] !== null) return cache[i][j];
16
17    const k = i + j;
18    if (k === three.length) return true;
19
20    if (i < one.length && one[i] === three[k]) {
21      cache[i][j] = areInterwoven(one, two, three, i + 1, j, cache);
22      if (cache[i][j]) return true;
23    }
24
25    if (j < two.length && two[j] === three[k]) {
26      cache[i][j] = areInterwoven(one, two, three, i, j + 1, cache);
27      return cache[i][j];
28    }
29
30    cache[i][j] = false;
31    return false;
32  }
33
```

Solution 1Solution 2Solution 3

```
1 function interweavingStrings(one, two, three) {
2   // Write your code here.
3 }
4
5 // Do not edit the line below.
6 exports.interweavingStrings = interweavingStrings;
7
```

Our Tests

Custom Output

Submit Code

Test Case 1: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 2: `one = "ab", two = "bc", three = "ac"` → `false`

Test Case 3: `one = "ab", two = "bc", three = "ab"` → `false`

Test Case 4: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 5: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 6: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 7: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 8: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 9: `one = "ab", two = "bc", three = "abc"` → `true`

Test Case 10: `one = "ab", two = "bc", three = "abc"` → `true`

Custom Output

Submit Code

Run or submit code when you're ready.

Run or submit code when you're ready.