Questions

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subsequences again

1/1 point (graded)

Recall this implementation of subsequences() from the start of the reading:

```
public static String subsequences(String word) {
    if (word.isEmpty()) {
        return ""; // base case
    } else {
        char firstLetter = word.charAt(0);
        String restOfWord = word.substring(1);

        String subsequencesOfRest = subsequences(restOfWord);

        String result = "";
        for (String subsequence : subsequencesOfRest.split(",", -1)) {
            result += "," + subsequence;
            result += "," + firstLetter + subsequence;
        }
        if (result.startsWith(",")) result = result.substring(1);
        return result;
    }
}
```

For subsequences("123456"), how deep does its recursive call stack get? How many recursive calls to subsequences() can be active at the same time?

7

Answer: 7

7

The calls are "123456", "23456", "3456", ..., "56", "6", "", for a total of 7.

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