

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1Solution 2Solution 3

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4     // O(n^2) time | O(1) space
5     func numberOfBinaryTreeTopologies(_ n: Int) -> Int {
6         var cache = [0: 1]
7         return numberOfBinaryTreeTopologiesHelper(n, &cache)
8     }
9
10    func numberOfBinaryTreeTopologiesHelper(_ n: Int, _ cache: inout
11        if let cachedValue = cache[n] {
12            return cachedValue
13        }
14
15        var numberOfTopologies = 0
16
17        for leftTreeSize in 0 ..< n {
18            let rightTreeSize = n - 1 - leftTreeSize
19
20            let leftNumberOfTopologies = numberOfBinaryTreeTopologiesH
21            let rightNumberOfTopologies = numberOfBinaryTreeTopologies
22            numberOfTopologies += leftNumberOfTopologies * rightNumber
23        }
24
25        cache[n] = numberOfTopologies
26        return numberOfTopologies
27    }
28 }
29
```

Solution 1Solution 2Solution 3

```
1 class Program {
2     func numberOfBinaryTreeTopologies(_ n: Int) -> Int {
3         // Write your code here.
4         return -1
5     }
6 }
7
```

```
18         self.event_handlers[event_handler_id].program.add_event_handler(program_handler_id)
19     }
20     return "Test Case 47:  $\epsilon \leq 0$  - Success" + Test 20
21     def event_handler_48, program_handler_48(program_handler_id):
22     }
23     return "Test Case 47:  $\epsilon \leq 0$  - Success" + Test 20
24     def event_handler_49, program_handler_49(program_handler_id):
25     }
26     return "Test Case 47:  $\epsilon \leq 0$  - Success" + Test 20
27     def event_handler_50, program_handler_50(program_handler_id):
28     }
29     return "Test Case 47:  $\epsilon \leq 0$  - Success" + Test 20
30     def event_handler_51, program_handler_51(program_handler_id):
31     }
32     return "Test Case 47:  $\epsilon \leq 0$  - Success" + Test 20
```

Run or submit code when you're ready.