

## CheckTreeIsSymmetric.java

```

1  package TreesTesting;
2
3  public class CheckTreeIsSymmetric {
4
5      public static boolean isSymmetric(Node root) {
6  1      if (root == null) {
7  1          return true;
8      }
9  2      return isSymmetric(root.left, root.right);
10     }
11
12     private static boolean isSymmetric(Node leftSubtreeRoot, Node rightSubtreeRoot) {
13  2         if (leftSubtreeRoot == null && rightSubtreeRoot == null) {
14  1             return true;
15         }
16  3         if (leftSubtreeRoot == null || rightSubtreeRoot == null || leftSubtreeRoot.data != rightSubtreeRoot.data) {
17  1             return false;
18         }
19  4         return isSymmetric(leftSubtreeRoot.right, rightSubtreeRoot.left) && isSymmetric(leftSubtreeRoot.left, rightSubtreeRoot.right);
20     }
21 }

```

### Mutations

```

6  1. negated conditional → KILLED
7  1. replaced boolean return with false for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
9  1. replaced boolean return with false for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
   2. replaced boolean return with true for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
13 1. negated conditional → KILLED
   2. negated conditional → KILLED
14 1. replaced boolean return with false for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
   1. negated conditional → KILLED
16 2. negated conditional → KILLED
   3. negated conditional → KILLED
17 1. replaced boolean return with true for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
   1. replaced boolean return with false for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
19 2. replaced boolean return with true for TreesTesting/CheckTreeIsSymmetric::isSymmetric → KILLED
   3. negated conditional → KILLED
   4. negated conditional → KILLED

```

### Active mutators

- BOOLEAN\_FALSE\_RETURN
- BOOLEAN\_TRUE\_RETURN
- CONDITIONALS\_BOUNDARY\_MUTATOR
- EMPTY\_RETURN\_VALUES
- INCREMENTS\_MUTATOR
- INVERT\_NEGS\_MUTATOR
- MATH\_MUTATOR
- NEGATE\_CONDITIONALS\_MUTATOR
- NULL\_RETURN\_VALUES
- PRIMITIVE\_RETURN\_VALS\_MUTATOR
- VOID\_METHOD\_CALL\_MUTATOR

### Tests examined

- TreesTesting.AllTreeTesting.[engine:junit-jupiter]/[class:TreesTesting.AllTreeTesting]/[method:testSymmetric()] (14 ms)
- TreesTesting.AllTreeTesting.[engine:junit-jupiter]/[class:TreesTesting.AllTreeTesting]/[method:build()] (31 ms)

Report generated by [PIT](#) 1.6.8