

FloodFill.java

```

1  package Graph;
2
3  import java.util.LinkedList;
4
5  public class FloodFill {
6      public int[][] floodFill(int[][] image, int sr, int sc, int color) {
7          int startColor = image[sr][sc];
8          1 if (startColor == color)
9          1 return image;
10         image[sr][sc] = color;
11         LinkedList<Integer[]> line = new LinkedList<>();
12         int [][]move = new int[][]{{0,1}, {0, -1}, {1, 0}, {-1, 0}};
13         line.add(new Integer[]{sr, sc});
14         Integer []tmp;
15         2 while (line.size() > 0) {
16             tmp = line.getFirst();
17             line.removeFirst();
18             for (int[] step : move) {
19         6                 if (tmp[0] + step[0] > -1 && tmp[0] + step[0] < image.length &&
20         6                     tmp[1] + step[1] > -1 && tmp[1] + step[1] < image[0].length &&
21         3                     image[tmp[0] + step[0]][tmp[1] + step[1]] == startColor) {
22         2                         image[tmp[0] + step[0]][tmp[1] + step[1]] = color;
23
24         2                         line.add(new Integer[]{tmp[0] + step[0], tmp[1] + step[1]});
25                     }
26             }
27         }
28         1 return image;
29     }
30 }

```

Mutations

```

8 1. negated conditional → KILLED
9 1. replaced return value with null for Graph/FloodFill::floodFill → KILLED
15 1. changed conditional boundary → KILLED
    2. negated conditional → KILLED
    1. Replaced integer addition with subtraction → KILLED
    2. changed conditional boundary → KILLED
19 3. negated conditional → KILLED
    4. Replaced integer addition with subtraction → KILLED
    5. changed conditional boundary → KILLED
    6. negated conditional → KILLED
    1. Replaced integer addition with subtraction → KILLED
    2. changed conditional boundary → KILLED
20 3. negated conditional → KILLED
    4. changed conditional boundary → KILLED
    5. negated conditional → KILLED
    6. Replaced integer addition with subtraction → KILLED
    1. Replaced integer addition with subtraction → KILLED
21 2. Replaced integer addition with subtraction → KILLED
    3. negated conditional → TIMED_OUT
22 1. Replaced integer addition with subtraction → KILLED
    2. Replaced integer addition with subtraction → KILLED
24 1. Replaced integer addition with subtraction → KILLED
    2. Replaced integer addition with subtraction → KILLED
28 1. replaced return value with null for Graph/FloodFill::floodFill → KILLED

```

Active mutators

- CONDITIONALS_BOUNDARY
- EMPTY_RETURNS
- FALSE_RETURNS
- INCREMENTS

- INVERT_NEGS
- MATH
- NEGATE_CONDITIONALS
- NULL_RETURNS
- PRIMITIVE_RETURNS
- TRUE_RETURNS
- VOID_METHOD_CALLS

Tests examined

- Graph.FloodFillTest.testFloodFill(Graph.FloodFillTest) (0 ms)

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