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1 public class ElevensGameTest extends ElevensGame
2 {
3     private static int winCounter = 0;
4     private static int lossCounter = 0;
5
6     private void testElevensSimulation(int range) {
7         for(int i = 0; i < range; i++){
8             while (getBoardLength() > 0) {
9                 ArrayList<Integer> SELECTION = checkPossibleMoves(BOARD);
10                if (checkPossibleMoves(BOARD).isEmpty()) {
11                    newBoard();
12                    lossCounter++;
13                    break;
14                } else if (checkPossibleMoves(BOARD).getLength() < 3) {
15                    if (getBoardEntry(SELECTION.getEntry(1)).equals(Eleven(getBoardEntry(SELECTION.
16getEntry(2))) == 1) {
17                        replaceCards(SELECTION.getEntry(1), SELECTION.getEntry(2));
18                    }
19                } else {
20                    if (getBoardEntry(SELECTION.getEntry(1)).equals(JQK(getBoardEntry(SELECTION.getEntry
21(2))),
22                        getBoardEntry(SELECTION.getEntry(3))) == 1) {
23                            replaceCards(SELECTION.getEntry(1), SELECTION.getEntry(2), SELECTION.getEntry(
243));
25                        }
26                    }
27                }
28                if (getBoardLength() == 0)
29                {
30                    winCounter++;
31                }
32                newBoard();
33            }
34        }
35
36        public static void main(String[] args)
37        {
38            long startTime, endTime;
39            ElevensGameTest testElevens = new ElevensGameTest();
40
41            System.out.println("Test 10 Elevens games.");
42            startTime = System.nanoTime();
43            testElevens.testElevensSimulation(10);
44            endTime = System.nanoTime();
45            System.out.println("Total games played were: " + (winCounter + lossCounter));
46            System.out.println("Total wins were: " + winCounter);
47            System.out.println("Total losses were: " + lossCounter);
48            System.out.println("Time taken to play games: " + (endTime - startTime)+ " nanoseconds");
49            winCounter = 0; lossCounter = 0;
50
51            System.out.println("\nTest 100 Elevens games.");
52            startTime = System.nanoTime();
53            testElevens.testElevensSimulation(100);
54            endTime = System.nanoTime();
55            System.out.println("Total games played were: " + (winCounter + lossCounter));
56            System.out.println("Total wins were: " + winCounter);
57            System.out.println("Total losses were: " + lossCounter);
58            System.out.println("Time taken to play games: " + (endTime - startTime)+ " nanoseconds");
59            winCounter = 0; lossCounter = 0;
60
61            System.out.println("\nTest 1000 Elevens games.");
62            startTime = System.nanoTime();
63            testElevens.testElevensSimulation(1000);
64            endTime = System.nanoTime();
65            System.out.println("Total games played were: " + (winCounter + lossCounter));
66            System.out.println("Total wins were: " + winCounter);
67            System.out.println("Total losses were: " + lossCounter);
68            System.out.println("Time taken to play games: " + (endTime - startTime)+ " nanoseconds");
69            winCounter = 0; lossCounter = 0;
70
71            System.out.println("\nTest 10000 Elevens games.");
72            startTime = System.nanoTime();
73            testElevens.testElevensSimulation(10000);
74            endTime = System.nanoTime();
75            System.out.println("Total games played were: " + (winCounter + lossCounter));
76            System.out.println("Total wins were: " + winCounter);

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74      System.out.println("Total losses were: " + lossCounter);
75      System.out.println("Time taken to play games: " + (endTime - startTime)+ " nanoseconds");
76      winCounter = 0; lossCounter = 0;
77
78      System.out.println("\nTest 100000 Elevens games.");
79      startTime = System.nanoTime();
80      testElevens.testElevensSimulation(100000);
81      endTime = System.nanoTime();
82      System.out.println("Total games played were: " + (winCounter + lossCounter));
83      System.out.println("Total wins were: " + winCounter);
84      System.out.println("Total losses were: " + lossCounter);
85      System.out.println("Time taken to play games: " + (endTime - startTime)+ " nanoseconds");
86  }
87 }
88
```