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Activity 11 Exercises

Exercise 1

*Noted.*

Exercise 2

*Completed in ElevensBoard.java.*

Exercise 3

*Completed in ElevensBoard.java.*

Exercise 4

*Completed in ElevensBoard.java.*

Exercise 5

*Completed in ElevensBoard.java.*

Exercise 6

*Completed in ElevensBoard.java.*

Exercise 7

*Completed in ElevensBoard.java.*

Exercise 8

*Completed. 11-pairs and JQK-triplets correctly identified and removed.*

Activity 11 Questions

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Trial | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| % Won | 0 | 10 | 0 | 20 | 0 | 0 | 20 | 10 | 0 |

The range of win percentages is from 0-20%. The percentages weren’t too consistent altogether, but a 0% won proportion was dominant.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Trial | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| % Won | 2 | 6 | 7 | 10 | 8 | 5 | 8 | 7 | 9 |

The win percentages seem more consistent now after increasing the number of trials. While it began with the outliers of 2%, it produced results around 7-9 consistently afterwards.

1. It is difficult to determine the exact number of games you must play because natural sampling variation prevents the consistency to be, well, consistent no matter how many times you run the experiment. To make it the most consistent, a high number of games must be played, as high as possible, that is permitted by the resources of the computer executing the program.
2. *Completed in ThirteensBoard.java and ThirteensSimulation.java.*