

# Project 2: Matching Game Thread Synchronization Simulation

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## 1 Overview

In this project, we are going to build the game “MatchingCards”. MatchingCards is a simple card game played with 6 players and a single deck of cards. A game is composed of 6 rounds. In each round, one of the players will act as the dealer and will be responsible for shuffling the deck of cards, keeping a single target card to be matched, distributing the cards to the players and waiting for the round to end. In round 1, player 1 will be the dealer, in round 2, player 2 will be the dealer and so on. In the first round, player 1 will start by shuffling the deck of cards, drawing one card to his/herself (called the target card) and giving each player one card. Player 1 will then place the remaining deck of cards on the table and signals that the round begins. In this round, players in a round-robin fashion and starting with player 2 will draw a card from the deck and compares his/her hand to the target card. If none of the cards in his/her hand match the target card, the player will discard one card at random by placing it at the end of the deck of cards and the next player proceeds. If there is a match (e.g., two kings, two queens, two jacks or any two numbers of the same value), then the player will show their hand, declaring his/herself as the winner and the round ends. At the end of the first round, player 1 will signal the following round to start (i.e., player 2 will be the dealer). A game ends when the 6 rounds are completed.

## 2 Implementation

This project is to be implemented in C/C++ using POSIX threads. You can check:

<https://hpc-tutorials.llnl.gov/posix/> for a tutorial on the POSIX thread library. The main function should create 6 threads – one for the players. Notice that we want to keep the threads synchronized and to protect any shared objects (e.g., deck of cards, log file, printing to the console). At the end of every round, each thread must print a message if they won or lost this round (e.g., “Player 2 lost round 4” or “Player 3 won round 1”, etc.). The main program takes a seed as an argument for the random number generation (which will be used in shuffling and in discarding cards ).

## 3 Results

Results are from 6 independent tests run using different seeds. Using ./a.out 1, ./a.out 2, ./a.out 5, ./a.out 10, ./a.out 21, ./a.out 35. 6 tests done instead of 5 just to match round numbers and player numbers. Some things noticeable from each different trail are:

- Game\_Log 1 shows player 2 winning half of total rounds with 3 wins and the other half, 3 rounds, where there was no winner.
- Game\_Log 2 shows player 6 wins 2 total rounds and so does player 1. The whole game log shows a great overall game as there was a winner every single round .
- Game\_Log 3 comes with there being more rounds where there isn't a winner reaching a total of 3. Player 6 comes close as he wins 2 rounds and player 4 squeezes in a win at the last second.
- Game\_Log 4 had the most variances in different player wins as three different players won rounds. The other three had no winner however and is similar to log 3 and 1.
- Game\_Log 5 just like previous log had half of the games with no winners. Players 2 and 6 are the only ones who walk away victorious.
- Game\_Log 6 shows only 2 rounds where no winner in the round. Besides that every player except 3, 5, and 6 do not win.

## 4 Compiling and Executing Instructions

The code should work with any C++11 or above

To run the program like how I did on my computer, navigate to correct directory and then enter the following command:

```
gcc OSproject24.cpp -lpthread
```

then once code is compiled then enter this:

```
./a.out # (# can be replaced with integer of choice, # equals seed_values)
```

## 5 Data Trials

### **Trial 1**

-----  
ROUND1  
-----

DEALER 1 DRAWS TARGET CARD: 9  
DEALER 1 DEALS a 2 TO PLAYER2  
DEALER 1 DEALS a 12 TO PLAYER3  
DEALER 1 DEALS a 8 TO PLAYER4  
DEALER 1 DEALS a 13 TO PLAYER5  
DEALER 1 DEALS a 7 TO PLAYER6  
DEALER 1 DEALS a 10 TO PLAYER1

Player 2 draws a 3  
Player 2 Hand: <2, 3>  
Player 2 discards card: 3  
Player 2 Hand: <2>  
10 5 4 3 3 8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3

Player 3 draws a 10  
Player 3 Hand: <12, 10>  
Player 3 discards card: 12  
Player 3 Hand: <10>  
5 4 3 3 8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3 12

Player 4 draws a 5  
Player 4 Hand: <8, 5>  
Player 4 discards card: 5  
Player 4 Hand: <8>  
4 3 3 8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3 12 5

Player 5 draws a 4  
Player 5 Hand: <13, 4>  
Player 5 discards card: 4  
Player 5 Hand: <13>  
3 3 8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3 12 5 4

Player 6 draws a 3  
Player 6 Hand: <7, 3>  
Player 6 discards card: 7  
Player 6 Hand: <3>

3 8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3 12 5 4 7

Player 1 draws a 3

Player 1 Hand: <10, 3>

Player 1 discards card: 10

Player 1 Hand: <3>

8 5 5 9 1 12 6 11 6 12 4 7 10 1 2 6 9 8 13 7 3 9 8 12 2 1 5 6 7 11 2 4 11 1 13 11 4 13 10 3 12 5 4 7 10

Player 1 lost round 1

Player 2 lost round 1

Player 3 lost round 1

Player 4 lost round 1

Player 5 lost round 1

Player 6 lost round 1

-----  
ROUND2

DEALER 2 DRAWS TARGET CARD: 11

DEALER 2 DEALS a 1 TO PLAYER3

DEALER 2 DEALS a 7 TO PLAYER4

DEALER 2 DEALS a 10 TO PLAYER5

DEALER 2 DEALS a 9 TO PLAYER6

DEALER 2 DEALS a 10 TO PLAYER1

DEALER 2 DEALS a 11 TO PLAYER2

Player 3 draws a 8

Player 3 Hand: <1, 8>

Player 3 discards card: 8

Player 3 Hand: <1>

12 2 5 8 5 3 4 12 4 8 5 11 5 7 10 4 1 1 4 7 13 5 2 6 10 3 2 10 13 7 1 13 12 9 6 12 6 4 3 3 11 3 9 6 8

Player 4 draws a 12

Player 4 Hand: <7, 12>

Player 4 discards card: 7

Player 4 Hand: <12>

2 5 8 5 3 4 12 4 8 5 11 5 7 10 4 1 1 4 7 13 5 2 6 10 3 2 10 13 7 1 13 12 9 6 12 6 4 3 3 11 3 9 6 8 7

Player 5 draws a 2

Player 5 Hand: <10, 2>

Player 5 discards card: 10

Player 5 Hand: <2>

5 8 5 3 4 12 4 8 5 11 5 7 10 4 1 1 4 7 13 5 2 6 10 3 2 10 13 7 1 13 12 9 6 12 6 4 3 3 11 3 9 6 8 7 10

Player 6 draws a 5

Player 6 Hand: <9, 5>

Player 6 discards card: 9

Player 6 Hand: <5>

8 5 3 4 12 4 8 5 11 5 7 10 4 1 1 4 7 13 5 2 6 10 3 2 10 13 7 1 13 12 9 6 12 6 4 3 3 11 3 9 6 8 7 10 9

Player 1 draws a 8

Player 1 Hand: <10, 8>

Player 1 discards card: 10

Player 1 Hand: <8>

5 3 4 12 4 8 5 11 5 7 10 4 1 1 4 7 13 5 2 6 10 3 2 10 13 7 1 13 12 9 6 12 6 4 3 3 11 3 9 6 8 7 10 9 10

Player 2 draws a 5

Player 2 Hand: <11, 5>

Player 2 wins round 2 with matching card 11

Player 1 lost round 2

Player 3 lost round 2

Player 4 lost round 2

Player 5 lost round 2

Player 6 lost round 2

-----  
ROUND3

DEALER 3 DRAWS TARGET CARD: 4  
DEALER 3 DEALS a 9 TO PLAYER4  
DEALER 3 DEALS a 12 TO PLAYER5  
DEALER 3 DEALS a 8 TO PLAYER6  
DEALER 3 DEALS a 5 TO PLAYER1  
DEALER 3 DEALS a 7 TO PLAYER2  
DEALER 3 DEALS a 8 TO PLAYER3

Player 4 draws a 11  
Player 4 Hand: <9, 11>  
Player 4 discards card: 11  
Player 4 Hand: <9>  
10 11 1 4 3 5 8 2 1 12 7 9 13 6 6 13 10 2 12 5 10 10 12 6 6 9 3 4 3 11 7 5 8 3 7 1 2 5 3 4 10 10 4 13 11

Player 5 draws a 10  
Player 5 Hand: <12, 10>  
Player 5 discards card: 10  
Player 5 Hand: <12>  
11 1 4 3 5 8 2 1 12 7 9 13 6 6 13 10 2 12 5 10 10 12 6 6 9 3 4 3 11 7 5 8 3 7 1 2 5 3 4 10 10 4 13 11 10

Player 6 draws a 11  
Player 6 Hand: <8, 11>  
Player 6 discards card: 8  
Player 6 Hand: <11>  
1 4 3 5 8 2 1 12 7 9 13 6 6 13 10 2 12 5 10 10 12 6 6 9 3 4 3 11 7 5 8 3 7 1 2 5 3 4 10 10 4 13 11 10 8

Player 1 draws a 1  
Player 1 Hand: <5, 1>  
Player 1 discards card: 1  
Player 1 Hand: <5>  
4 3 5 8 2 1 12 7 9 13 6 6 13 10 2 12 5 10 10 12 6 6 9 3 4 3 11 7 5 8 3 7 1 2 5 3 4 10 10 4 13 11 10 8 1

Player 2 draws a 4  
Player 2 Hand: <7, 4>  
Player 2 wins round 3 with matching card 4

Player 1 lost round 3  
Player 3 lost round 3  
Player 4 lost round 3  
Player 5 lost round 3  
Player 6 lost round 3

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#### ROUND4

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DEALER 4 DRAWS TARGET CARD: 10  
DEALER 4 DEALS a 13 TO PLAYER5  
DEALER 4 DEALS a 11 TO PLAYER6  
DEALER 4 DEALS a 5 TO PLAYER1  
DEALER 4 DEALS a 1 TO PLAYER2  
DEALER 4 DEALS a 5 TO PLAYER3  
DEALER 4 DEALS a 3 TO PLAYER4

Player 5 draws a 7  
Player 5 Hand: <13, 7>  
Player 5 discards card: 7  
Player 5 Hand: <13>  
6 1 10 4 1 5 6 12 3 4 9 8 5 11 6 9 3 2 4 10 6 11 11 7 8 10 12 7 10 2 4 3 2 8 12 1 8 3 10 13 13 7 10 5 7

Player 6 draws a 6  
Player 6 Hand: <11, 6>  
Player 6 discards card: 11  
Player 6 Hand: <6>  
1 10 4 1 5 6 12 3 4 9 8 5 11 6 9 3 2 4 10 6 11 11 7 8 10 12 7 10 2 4 3 2 8 12 1 8 3 10 13 13 7 10 5 7 11

Player 1 draws a 1  
Player 1 Hand: <5, 1>

Player 1 discards card: 5  
Player 1 Hand: <1>  
10 4 1 5 6 12 3 4 9 8 5 11 6 9 3 2 4 10 6 11 11 7 8 10 12 7 10 2 4 3 2 8 12 1 8 3 10 13 13 7 10 5 7 11 5

Player 2 draws a 10  
Player 2 Hand: <1, 10>  
Player 2 wins round 4 with matching card 10

Player 1 lost round 4  
Player 3 lost round 4  
Player 4 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

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#### ROUND5

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DEALER 5 DRAWS TARGET CARD: 3  
DEALER 5 DEALS a 11 TO PLAYER6  
DEALER 5 DEALS a 6 TO PLAYER1  
DEALER 5 DEALS a 4 TO PLAYER2  
DEALER 5 DEALS a 2 TO PLAYER3  
DEALER 5 DEALS a 7 TO PLAYER4  
DEALER 5 DEALS a 8 TO PLAYER5

Player 6 draws a 1  
Player 6 Hand: <11, 1>  
Player 6 discards card: 1  
Player 6 Hand: <11>  
5 10 10 9 4 5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1

Player 1 draws a 5  
Player 1 Hand: <6, 5>  
Player 1 discards card: 5  
Player 1 Hand: <6>  
10 10 9 4 5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1 5

Player 2 draws a 10  
Player 2 Hand: <4, 10>  
Player 2 discards card: 10  
Player 2 Hand: <4>  
10 9 4 5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1 5 10

Player 3 draws a 10  
Player 3 Hand: <2, 10>  
Player 3 discards card: 2  
Player 3 Hand: <10>  
9 4 5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1 5 10 2

Player 4 draws a 9  
Player 4 Hand: <7, 9>  
Player 4 discards card: 7  
Player 4 Hand: <9>  
4 5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1 5 10 2 7

Player 5 draws a 4  
Player 5 Hand: <8, 4>  
Player 5 discards card: 8  
Player 5 Hand: <4>  
5 2 11 6 10 7 7 3 6 8 3 11 13 1 2 10 9 5 12 4 1 12 5 4 10 13 7 5 1 6 11 3 3 10 7 8 12 8 5 1 5 10 2 7 8  
Player 1 lost round 5  
Player 2 lost round 5  
Player 3 lost round 5  
Player 4 lost round 5  
Player 5 lost round 5  
Player 6 lost round 5

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## ROUND6

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DEALER 6 DRAWS TARGET CARD: 1  
DEALER 6 DEALS a 5 TO PLAYER1  
DEALER 6 DEALS a 12 TO PLAYER2  
DEALER 6 DEALS a 13 TO PLAYER3  
DEALER 6 DEALS a 9 TO PLAYER4  
DEALER 6 DEALS a 3 TO PLAYER5  
DEALER 6 DEALS a 10 TO PLAYER6

Player 1 draws a 7  
Player 1 Hand: <5, 7>  
Player 1 discards card: 5  
Player 1 Hand: <7>  
10 8 10 7 10 5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5

Player 2 draws a 10  
Player 2 Hand: <12, 10>  
Player 2 discards card: 12  
Player 2 Hand: <10>  
8 10 7 10 5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5 12

Player 3 draws a 8  
Player 3 Hand: <13, 8>  
Player 3 discards card: 8  
Player 3 Hand: <13>  
10 7 10 5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5 12 8

Player 4 draws a 10  
Player 4 Hand: <9, 10>  
Player 4 discards card: 9  
Player 4 Hand: <10>  
7 10 5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5 12 8 9

Player 5 draws a 7  
Player 5 Hand: <3, 7>  
Player 5 discards card: 7  
Player 5 Hand: <3>  
10 5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5 12 8 9 7

Player 6 draws a 10  
Player 6 Hand: <10, 10>  
Player 6 discards card: 10  
Player 6 Hand: <10>  
5 11 5 5 6 8 3 12 10 13 11 2 7 1 8 8 12 8 2 7 5 3 5 2 4 11 1 3 4 7 6 10 6 1 4 10 5 9 1 5 12 8 9 7 10  
Player 1 lost round 6  
Player 2 lost round 6  
Player 3 lost round 6  
Player 4 lost round 6  
Player 5 lost round 6  
Player 6 lost round 6

## **Trial 2**

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## ROUND1

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DEALER 1 DRAWS TARGET CARD: 3  
DEALER 1 DEALS a 13 TO PLAYER2  
DEALER 1 DEALS a 12 TO PLAYER3  
DEALER 1 DEALS a 2 TO PLAYER4  
DEALER 1 DEALS a 12 TO PLAYER5  
DEALER 1 DEALS a 2 TO PLAYER6  
DEALER 1 DEALS a 3 TO PLAYER1

Player 2 draws a 13  
Player 2 Hand: <13, 13>  
Player 2 discards card: 13  
Player 2 Hand: <13>  
9 1 11 6 10 8 2 4 1 3 9 4 12 5 11 7 5 7 13 1 8 10 11 1 11 6 13 10 10 4 7 2 7 9 6 4 5 12 5 8 8 6 3 9 13

Player 3 draws a 9  
Player 3 Hand: <12, 9>  
Player 3 discards card: 9  
Player 3 Hand: <12>  
1 11 6 10 8 2 4 1 3 9 4 12 5 11 7 5 7 13 1 8 10 11 1 11 6 13 10 10 4 7 2 7 9 6 4 5 12 5 8 8 6 3 9 13 9

Player 4 draws a 1  
Player 4 Hand: <2, 1>  
Player 4 discards card: 1  
Player 4 Hand: <2>  
11 6 10 8 2 4 1 3 9 4 12 5 11 7 5 7 13 1 8 10 11 1 11 6 13 10 10 4 7 2 7 9 6 4 5 12 5 8 8 6 3 9 13 9 1

Player 5 draws a 11  
Player 5 Hand: <12, 11>  
Player 5 discards card: 12  
Player 5 Hand: <11>  
6 10 8 2 4 1 3 9 4 12 5 11 7 5 7 13 1 8 10 11 1 11 6 13 10 10 4 7 2 7 9 6 4 5 12 5 8 8 6 3 9 13 9 1 12

Player 6 draws a 6  
Player 6 Hand: <2, 6>  
Player 6 discards card: 6  
Player 6 Hand: <2>  
10 8 2 4 1 3 9 4 12 5 11 7 5 7 13 1 8 10 11 1 11 6 13 10 10 4 7 2 7 9 6 4 5 12 5 8 8 6 3 9 13 9 1 12 6

Player 1 draws a 10  
Player 1 Hand: <3, 10>  
Player 1 wins round 1 with matching card 3

Player 2 lost round 1  
Player 3 lost round 1  
Player 4 lost round 1  
Player 5 lost round 1  
Player 6 lost round 1

-----  
ROUND2  
-----

DEALER 2 DRAWS TARGET CARD: 1  
DEALER 2 DEALS a 7 TO PLAYER3  
DEALER 2 DEALS a 13 TO PLAYER4  
DEALER 2 DEALS a 7 TO PLAYER5  
DEALER 2 DEALS a 12 TO PLAYER6  
DEALER 2 DEALS a 13 TO PLAYER1  
DEALER 2 DEALS a 6 TO PLAYER2

Player 3 draws a 10  
Player 3 Hand: <7, 10>  
Player 3 discards card: 7  
Player 3 Hand: <10>  
6 1 9 4 3 1 9 7 5 2 9 8 10 4 3 1 2 9 8 2 8 9 5 4 13 6 11 3 4 11 13 8 6 12 10 11 1 5 10 11 6 7 12 5 7

Player 4 draws a 6



Player 4 Hand: <13, 6>  
Player 4 discards card: 13  
Player 4 Hand: <6>  
1 9 4 3 1 9 7 5 2 9 8 10 4 3 1 2 9 8 2 8 9 5 4 13 6 11 3 4 11 13 8 6 12 10 11 1 5 10 11 6 7 12 5 7 13

Player 5 draws a 1  
Player 5 Hand: <7, 1>  
Player 5 wins round 2 with matching card 1

Player 1 lost round 2  
Player 2 lost round 2  
Player 3 lost round 2  
Player 4 lost round 2  
Player 6 lost round 2

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### ROUND3

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DEALER 3 DRAWS TARGET CARD: 5  
DEALER 3 DEALS a 9 TO PLAYER4  
DEALER 3 DEALS a 9 TO PLAYER5  
DEALER 3 DEALS a 5 TO PLAYER6  
DEALER 3 DEALS a 8 TO PLAYER1  
DEALER 3 DEALS a 9 TO PLAYER2  
DEALER 3 DEALS a 4 TO PLAYER3

Player 4 draws a 3  
Player 4 Hand: <9, 3>  
Player 4 discards card: 3  
Player 4 Hand: <9>  
8 10 11 3 7 13 6 2 11 4 10 6 6 3 13 8 10 13 9 8 6 12 11 1 7 12 7 7 1 5 1 5 9 1 4 12 13 6 10 11 13 2 2 4 3

Player 5 draws a 8  
Player 5 Hand: <9, 8>  
Player 5 discards card: 8  
Player 5 Hand: <9>  
10 11 3 7 13 6 2 11 4 10 6 6 3 13 8 10 13 9 8 6 12 11 1 7 12 7 7 1 5 1 5 9 1 4 12 13 6 10 11 13 2 2 4 3 8

Player 6 draws a 10  
Player 6 Hand: <5, 10>  
Player 6 wins round 3 with matching card 5

Player 1 lost round 3  
Player 2 lost round 3  
Player 3 lost round 3  
Player 4 lost round 3  
Player 5 lost round 3

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### ROUND4

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DEALER 4 DRAWS TARGET CARD: 12  
DEALER 4 DEALS a 1 TO PLAYER5  
DEALER 4 DEALS a 7 TO PLAYER6  
DEALER 4 DEALS a 12 TO PLAYER1  
DEALER 4 DEALS a 3 TO PLAYER2  
DEALER 4 DEALS a 6 TO PLAYER3  
DEALER 4 DEALS a 8 TO PLAYER4

Player 5 draws a 10  
Player 5 Hand: <1, 10>  
Player 5 discards card: 1  
Player 5 Hand: <10>  
4 13 7 6 11 4 3 1 6 3 12 2 11 8 13 6 8 9 7 8 10 5 2 4 6 9 3 13 4 5 10 1 11 13 11 10 7 8 1 2 9 9 13 5 1

Player 6 draws a 4  
Player 6 Hand: <7, 4>  
Player 6 discards card: 4  
Player 6 Hand: <7>  
13 7 6 11 4 3 1 6 3 12 2 11 8 13 6 8 9 7 8 10 5 2 4 6 9 3 13 4 5 10 1 11 13 11 10 7 8 1 2 9 9 13 5 1 4

Player 1 draws a 13  
Player 1 Hand: <12, 13>  
Player 1 wins round 4 with matching card 12

Player 2 lost round 4  
Player 3 lost round 4  
Player 4 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

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#### ROUND5

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DEALER 5 DRAWS TARGET CARD: 6  
DEALER 5 DEALS a 6 TO PLAYER6  
DEALER 5 DEALS a 2 TO PLAYER1  
DEALER 5 DEALS a 7 TO PLAYER2  
DEALER 5 DEALS a 5 TO PLAYER3  
DEALER 5 DEALS a 1 TO PLAYER4  
DEALER 5 DEALS a 7 TO PLAYER5

Player 6 draws a 10  
Player 6 Hand: <6, 10>  
Player 6 wins round 5 with matching card 6

Player 1 lost round 5  
Player 2 lost round 5  
Player 3 lost round 5  
Player 4 lost round 5  
Player 5 lost round 5

---

#### ROUND6

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DEALER 6 DRAWS TARGET CARD: 8  
DEALER 6 DEALS a 11 TO PLAYER1  
DEALER 6 DEALS a 10 TO PLAYER2  
DEALER 6 DEALS a 8 TO PLAYER3  
DEALER 6 DEALS a 9 TO PLAYER4  
DEALER 6 DEALS a 13 TO PLAYER5  
DEALER 6 DEALS a 11 TO PLAYER6

Player 1 draws a 4  
Player 1 Hand: <11, 4>  
Player 1 discards card: 4  
Player 1 Hand: <11>  
6 3 13 6 9 3 9 2 2 4 8 7 5 13 13 7 9 8 12 4 7 2 3 5 4 8 10 11 3 7 10 6 4 1 5 13 6 11 1 1 1 6 12 10 4

Player 2 draws a 6  
Player 2 Hand: <10, 6>  
Player 2 discards card: 6  
Player 2 Hand: <10>  
3 13 6 9 3 9 2 2 4 8 7 5 13 13 7 9 8 12 4 7 2 3 5 4 8 10 11 3 7 10 6 4 1 5 13 6 11 1 1 1 6 12 10 4 6

Player 3 draws a 3  
Player 3 Hand: <8, 3>  
Player 3 wins round 6 with matching card 8

Player 1 lost round 6  
Player 2 lost round 6  
Player 4 lost round 6  
Player 5 lost round 6  
Player 6 lost round 6

### **Trial 3**

#### ROUND1

DEALER 1 DRAWS TARGET CARD: 1  
DEALER 1 DEALS a 12 TO PLAYER2  
DEALER 1 DEALS a 3 TO PLAYER3  
DEALER 1 DEALS a 6 TO PLAYER4  
DEALER 1 DEALS a 10 TO PLAYER5  
DEALER 1 DEALS a 13 TO PLAYER6  
DEALER 1 DEALS a 12 TO PLAYER1

Player 2 draws a 12  
Player 2 Hand: <12, 12>  
Player 2 discards card: 12  
Player 2 Hand: <12>  
11 12 5 7 9 11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12

Player 3 draws a 11  
Player 3 Hand: <3, 11>  
Player 3 discards card: 3  
Player 3 Hand: <11>  
12 5 7 9 11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12 3

Player 4 draws a 12  
Player 4 Hand: <6, 12>  
Player 4 discards card: 12  
Player 4 Hand: <6>  
5 7 9 11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12 3 12

Player 5 draws a 5  
Player 5 Hand: <10, 5>  
Player 5 discards card: 5  
Player 5 Hand: <10>  
7 9 11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12 3 12 5

Player 6 draws a 7  
Player 6 Hand: <13, 7>  
Player 6 discards card: 13  
Player 6 Hand: <7>  
9 11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12 3 12 5 13

Player 1 draws a 9  
Player 1 Hand: <12, 9>  
Player 1 discards card: 12  
Player 1 Hand: <9>

11 5 3 6 2 6 5 10 5 3 3 7 13 8 4 4 2 2 1 9 10 13 8 11 1 10 11 9 2 8 4 7 4 7 1 9 8 6 13 12 3 12 5 13 12

Player 1 lost round 1

Player 2 lost round 1

Player 3 lost round 1

Player 4 lost round 1

Player 5 lost round 1

Player 6 lost round 1

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## ROUND2

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DEALER 2 DRAWS TARGET CARD: 13

DEALER 2 DEALS a 5 TO PLAYER3

DEALER 2 DEALS a 7 TO PLAYER4

DEALER 2 DEALS a 7 TO PLAYER5

DEALER 2 DEALS a 13 TO PLAYER6

DEALER 2 DEALS a 10 TO PLAYER1

DEALER 2 DEALS a 12 TO PLAYER2

Player 3 draws a 4

Player 3 Hand: <5, 4>

Player 3 discards card: 5

Player 3 Hand: <4>

2 11 1 3 12 2 10 8 4 5 6 12 1 8 8 6 6 11 3 7 11 13 9 1 9 3 12 12 7 13 8 4 12 2 5 3 2 9 4 9 5 5 11 10 5

Player 4 draws a 2

Player 4 Hand: <7, 2>

Player 4 discards card: 2

Player 4 Hand: <7>

11 1 3 12 2 10 8 4 5 6 12 1 8 8 6 6 11 3 7 11 13 9 1 9 3 12 12 7 13 8 4 12 2 5 3 2 9 4 9 5 5 11 10 5 2

Player 5 draws a 11

Player 5 Hand: <7, 11>

Player 5 discards card: 7

Player 5 Hand: <11>

1 3 12 2 10 8 4 5 6 12 1 8 8 6 6 11 3 7 11 13 9 1 9 3 12 12 7 13 8 4 12 2 5 3 2 9 4 9 5 5 11 10 5 2 7

Player 6 draws a 1

Player 6 Hand: <13, 1>

Player 6 wins round 2 with matching card 13

Player 1 lost round 2

Player 2 lost round 2

Player 3 lost round 2

Player 4 lost round 2

Player 5 lost round 2

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## ROUND3

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DEALER 3 DRAWS TARGET CARD: 1

DEALER 3 DEALS a 5 TO PLAYER4

DEALER 3 DEALS a 9 TO PLAYER5

DEALER 3 DEALS a 2 TO PLAYER6

DEALER 3 DEALS a 3 TO PLAYER1

DEALER 3 DEALS a 12 TO PLAYER2

DEALER 3 DEALS a 12 TO PLAYER3

Player 4 draws a 6

Player 4 Hand: <5, 6>

Player 4 discards card: 5

Player 4 Hand: <6>

12 3 2 7 7 12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5

Player 5 draws a 12

Player 5 Hand: <9, 12>

Player 5 discards card: 9

Player 5 Hand: <12>

3 2 7 7 12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5 9

Player 6 draws a 3

Player 6 Hand: <2, 3>

Player 6 discards card: 3

Player 6 Hand: <2>

2 7 7 12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5 9 3

Player 1 draws a 2

Player 1 Hand: <3, 2>

Player 1 discards card: 2

Player 1 Hand: <3>

7 7 12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5 9 3 2

Player 2 draws a 7

Player 2 Hand: <12, 7>

Player 2 discards card: 12

Player 2 Hand: <7>

7 12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5 9 3 2 12

Player 3 draws a 7

Player 3 Hand: <12, 7>

Player 3 discards card: 7

Player 3 Hand: <12>

12 9 11 10 4 2 6 8 5 5 11 7 3 13 2 6 8 12 4 5 2 1 11 4 4 12 13 11 13 8 3 1 10 10 7 9 5 8 9 5 9 3 2 12 7

Player 1 lost round 3

Player 2 lost round 3

Player 3 lost round 3

Player 4 lost round 3

Player 5 lost round 3

Player 6 lost round 3

-----  
ROUND4

-----  
DEALER 4 DRAWS TARGET CARD: 8

DEALER 4 DEALS a 3 TO PLAYER5

DEALER 4 DEALS a 3 TO PLAYER6

DEALER 4 DEALS a 7 TO PLAYER1

DEALER 4 DEALS a 12 TO PLAYER2

DEALER 4 DEALS a 10 TO PLAYER3

DEALER 4 DEALS a 4 TO PLAYER4

Player 5 draws a 2

Player 5 Hand: <3, 2>

Player 5 discards card: 3

Player 5 Hand: <2>

2 11 12 10 2 8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3

Player 6 draws a 2

Player 6 Hand: <3, 2>

Player 6 discards card: 2

Player 6 Hand: <3>

11 12 10 2 8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3 2

Player 1 draws a 11

Player 1 Hand: <7, 11>

Player 1 discards card: 11

Player 1 Hand: <7>

12 10 2 8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3 2 11

Player 2 draws a 12

Player 2 Hand: <12, 12>

Player 2 discards card: 12

Player 2 Hand: <12>

10 2 8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3 2 11 12

Player 3 draws a 10  
Player 3 Hand: <10, 10>  
Player 3 discards card: 10  
Player 3 Hand: <10>  
2 8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3 2 11 12 10

Player 4 draws a 2  
Player 4 Hand: <4, 2>  
Player 4 discards card: 4  
Player 4 Hand: <2>  
8 3 12 5 6 5 11 7 9 5 7 4 6 9 12 11 9 11 3 13 13 1 5 7 13 8 4 7 6 5 12 2 10 9 12 1 8 4 2 3 2 11 12 10 4  
Player 1 lost round 4  
Player 2 lost round 4  
Player 3 lost round 4  
Player 4 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

---

#### ROUND5

---

DEALER 5 DRAWS TARGET CARD: 12  
DEALER 5 DEALS a 11 TO PLAYER6  
DEALER 5 DEALS a 3 TO PLAYER1  
DEALER 5 DEALS a 11 TO PLAYER2  
DEALER 5 DEALS a 6 TO PLAYER3  
DEALER 5 DEALS a 2 TO PLAYER4  
DEALER 5 DEALS a 2 TO PLAYER5

Player 6 draws a 12  
Player 6 Hand: <11, 12>  
Player 6 wins round 5 with matching card 12

Player 1 lost round 5  
Player 2 lost round 5  
Player 3 lost round 5  
Player 4 lost round 5  
Player 5 lost round 5

---

#### ROUND6

---

DEALER 6 DRAWS TARGET CARD: 4  
DEALER 6 DEALS a 11 TO PLAYER1  
DEALER 6 DEALS a 9 TO PLAYER2  
DEALER 6 DEALS a 7 TO PLAYER3  
DEALER 6 DEALS a 2 TO PLAYER4  
DEALER 6 DEALS a 6 TO PLAYER5  
DEALER 6 DEALS a 3 TO PLAYER6

Player 1 draws a 5  
Player 1 Hand: <11, 5>  
Player 1 discards card: 5  
Player 1 Hand: <11>  
12 5 4 3 9 11 4 5 13 5 8 10 10 11 4 6 7 6 12 10 1 12 7 2 13 9 1 2 12 2 4 8 12 8 3 11 2 7 2 9 12 5 11 13 5

Player 2 draws a 12  
Player 2 Hand: <9, 12>  
Player 2 discards card: 9  
Player 2 Hand: <12>  
5 4 3 9 11 4 5 13 5 8 10 10 11 4 6 7 6 12 10 1 12 7 2 13 9 1 2 12 2 4 8 12 8 3 11 2 7 2 9 12 5 11 13 5 9

Player 3 draws a 5  
Player 3 Hand: <7, 5>  
Player 3 discards card: 5  
Player 3 Hand: <7>  
4 3 9 11 4 5 13 5 8 10 10 11 4 6 7 6 12 10 1 12 7 2 13 9 1 2 12 2 4 8 12 8 3 11 2 7 2 9 12 5 11 13 5 9 5

Player 4 draws a 4  
Player 4 Hand: <2, 4>  
Player 4 wins round 6 with matching card 4

Player 1 lost round 6  
Player 2 lost round 6  
Player 3 lost round 6  
Player 5 lost round 6  
Player 6 lost round 6

## **Trial 4**

### ROUND1

DEALER 1 DRAWS TARGET CARD: 11  
DEALER 1 DEALS a 6 TO PLAYER2  
DEALER 1 DEALS a 4 TO PLAYER3  
DEALER 1 DEALS a 1 TO PLAYER4  
DEALER 1 DEALS a 7 TO PLAYER5  
DEALER 1 DEALS a 2 TO PLAYER6  
DEALER 1 DEALS a 5 TO PLAYER1

Player 2 draws a 4  
Player 2 Hand: <6, 4>  
Player 2 discards card: 4  
Player 2 Hand: <6>  
1 8 11 3 3 10 9 10 6 12 8 1 12 3 5 1 12 7 13 11 9 13 8 8 2 6 13 4 10 10 12 2 6 7 7 9 9 5 2 5 11 13 3 4 4

Player 3 draws a 1  
Player 3 Hand: <4, 1>  
Player 3 discards card: 1  
Player 3 Hand: <4>  
8 11 3 3 10 9 10 6 12 8 1 12 3 5 1 12 7 13 11 9 13 8 8 2 6 13 4 10 10 12 2 6 7 7 9 9 5 2 5 11 13 3 4 4 1

Player 4 draws a 8  
Player 4 Hand: <1, 8>  
Player 4 discards card: 1  
Player 4 Hand: <8>  
11 3 3 10 9 10 6 12 8 1 12 3 5 1 12 7 13 11 9 13 8 8 2 6 13 4 10 10 12 2 6 7 7 9 9 5 2 5 11 13 3 4 4 1 1

Player 5 draws a 11  
Player 5 Hand: <7, 11>  
Player 5 wins round 1 with matching card 11

Player 1 lost round 1  
Player 2 lost round 1  
Player 3 lost round 1  
Player 4 lost round 1  
Player 6 lost round 1

### ROUND2

DEALER 2 DRAWS TARGET CARD: 1  
DEALER 2 DEALS a 10 TO PLAYER3  
DEALER 2 DEALS a 13 TO PLAYER4  
DEALER 2 DEALS a 1 TO PLAYER5  
DEALER 2 DEALS a 5 TO PLAYER6  
DEALER 2 DEALS a 2 TO PLAYER1  
DEALER 2 DEALS a 4 TO PLAYER2

Player 3 draws a 7  
Player 3 Hand: <10, 7>  
Player 3 discards card: 10  
Player 3 Hand: <7>  
1 12 3 13 11 13 8 3 7 9 11 9 13 6 5 7 4 3 10 4 8 10 6 11 1 7 12 1 5 5 1 2 10 3 8 4 8 12 2 6 9 9 12 2 10

Player 4 draws a 1  
Player 4 Hand: <13, 1>  
Player 4 wins round 2 with matching card 1

Player 1 lost round 2  
Player 2 lost round 2  
Player 3 lost round 2  
Player 5 lost round 2  
Player 6 lost round 2

---

### ROUND3

---

DEALER 3 DRAWS TARGET CARD: 10  
DEALER 3 DEALS a 6 TO PLAYER4  
DEALER 3 DEALS a 12 TO PLAYER5  
DEALER 3 DEALS a 9 TO PLAYER6  
DEALER 3 DEALS a 11 TO PLAYER1  
DEALER 3 DEALS a 2 TO PLAYER2  
DEALER 3 DEALS a 5 TO PLAYER3

Player 4 draws a 3  
Player 4 Hand: <6, 3>  
Player 4 discards card: 6  
Player 4 Hand: <3>  
9 5 7 13 1 3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6

Player 5 draws a 9  
Player 5 Hand: <12, 9>  
Player 5 discards card: 9  
Player 5 Hand: <12>  
5 7 13 1 3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6 9

Player 6 draws a 5  
Player 6 Hand: <9, 5>  
Player 6 discards card: 9  
Player 6 Hand: <5>  
7 13 1 3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6 9 9

Player 1 draws a 7  
Player 1 Hand: <11, 7>  
Player 1 discards card: 7  
Player 1 Hand: <11>  
13 1 3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6 9 9 7

Player 2 draws a 13  
Player 2 Hand: <2, 13>  
Player 2 discards card: 2  
Player 2 Hand: <13>  
1 3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6 9 9 7 2

Player 3 draws a 1  
Player 3 Hand: <5, 1>  
Player 3 discards card: 1  
Player 3 Hand: <5>  
3 6 9 5 8 13 2 1 4 4 9 10 12 3 8 2 4 4 5 12 13 2 7 1 13 10 8 8 10 7 11 10 12 3 11 1 7 6 1 6 9 9 7 2 1  
Player 1 lost round 3  
Player 2 lost round 3  
Player 3 lost round 3  
Player 4 lost round 3  
Player 5 lost round 3  
Player 6 lost round 3

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### ROUND4

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DEALER 4 DRAWS TARGET CARD: 5



DEALER 4 DEALS a 4 TO PLAYER5  
DEALER 4 DEALS a 7 TO PLAYER6  
DEALER 4 DEALS a 7 TO PLAYER1  
DEALER 4 DEALS a 4 TO PLAYER2  
DEALER 4 DEALS a 6 TO PLAYER3  
DEALER 4 DEALS a 7 TO PLAYER4

Player 5 draws a 3  
Player 5 Hand: <4, 3>  
Player 5 discards card: 3  
Player 5 Hand: <4>  
13 2 7 6 11 3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3

Player 6 draws a 13  
Player 6 Hand: <7, 13>  
Player 6 discards card: 13  
Player 6 Hand: <7>  
2 7 6 11 3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3 13

Player 1 draws a 2  
Player 1 Hand: <7, 2>  
Player 1 discards card: 2  
Player 1 Hand: <7>  
7 6 11 3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3 13 2

Player 2 draws a 7  
Player 2 Hand: <4, 7>  
Player 2 discards card: 4  
Player 2 Hand: <7>  
6 11 3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3 13 2 4

Player 3 draws a 6  
Player 3 Hand: <6, 6>  
Player 3 discards card: 6  
Player 3 Hand: <6>  
11 3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3 13 2 4 6

Player 4 draws a 11  
Player 4 Hand: <7, 11>  
Player 4 discards card: 7  
Player 4 Hand: <11>  
3 13 10 9 5 13 2 6 8 8 7 12 10 11 2 9 5 10 8 8 9 2 1 1 4 5 10 3 1 1 3 13 12 1 12 9 1 4 9 3 13 2 4 6 7  
Player 1 lost round 4  
Player 2 lost round 4  
Player 3 lost round 4  
Player 4 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

#### ----- ROUND5 -----

DEALER 5 DRAWS TARGET CARD: 7  
DEALER 5 DEALS a 13 TO PLAYER6  
DEALER 5 DEALS a 7 TO PLAYER1  
DEALER 5 DEALS a 10 TO PLAYER2  
DEALER 5 DEALS a 2 TO PLAYER3  
DEALER 5 DEALS a 13 TO PLAYER4  
DEALER 5 DEALS a 9 TO PLAYER5

Player 6 draws a 13  
Player 6 Hand: <13, 13>  
Player 6 discards card: 13  
Player 6 Hand: <13>  
9 1 10 12 11 2 9 2 12 6 3 6 11 9 3 10 5 1 13 9 1 8 8 3 8 3 4 7 3 4 10 12 1 13 7 1 2 6 5 8 1 5 2 4 13

Player 1 draws a 9

Player 1 Hand: <7, 9>  
Player 1 wins round 5 with matching card 7

Player 2 lost round 5  
Player 3 lost round 5  
Player 4 lost round 5  
Player 5 lost round 5  
Player 6 lost round 5

-----  
ROUND6  
-----

DEALER 6 DRAWS TARGET CARD: 10  
DEALER 6 DEALS a 5 TO PLAYER1  
DEALER 6 DEALS a 4 TO PLAYER2  
DEALER 6 DEALS a 1 TO PLAYER3  
DEALER 6 DEALS a 7 TO PLAYER4  
DEALER 6 DEALS a 2 TO PLAYER5  
DEALER 6 DEALS a 8 TO PLAYER6

Player 1 draws a 5  
Player 1 Hand: <5, 5>  
Player 1 discards card: 5  
Player 1 Hand: <5>  
1 11 6 12 1 9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5

Player 2 draws a 1  
Player 2 Hand: <4, 1>  
Player 2 discards card: 4  
Player 2 Hand: <1>  
11 6 12 1 9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5 4

Player 3 draws a 11  
Player 3 Hand: <1, 11>  
Player 3 discards card: 11  
Player 3 Hand: <1>  
6 12 1 9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5 4 11

Player 4 draws a 6  
Player 4 Hand: <7, 6>  
Player 4 discards card: 6  
Player 4 Hand: <7>  
12 1 9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5 4 11 6

Player 5 draws a 12  
Player 5 Hand: <2, 12>  
Player 5 discards card: 2  
Player 5 Hand: <12>  
1 9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5 4 11 6 2

Player 6 draws a 1  
Player 6 Hand: <8, 1>  
Player 6 discards card: 8  
Player 6 Hand: <1>  
9 9 3 2 9 1 13 6 13 5 7 10 8 4 3 12 13 7 3 2 9 6 1 10 9 3 11 4 13 13 1 8 13 10 2 2 12 3 8 5 4 11 6 2 8  
Player 1 lost round 6  
Player 2 lost round 6  
Player 3 lost round 6  
Player 4 lost round 6  
Player 5 lost round 6  
Player 6 lost round 6

## Trial 5

### ROUND1

DEALER 1 DRAWS TARGET CARD: 7  
DEALER 1 DEALS a 2 TO PLAYER2  
DEALER 1 DEALS a 5 TO PLAYER3  
DEALER 1 DEALS a 11 TO PLAYER4  
DEALER 1 DEALS a 4 TO PLAYER5  
DEALER 1 DEALS a 1 TO PLAYER6  
DEALER 1 DEALS a 1 TO PLAYER1

Player 2 draws a 5  
Player 2 Hand: <2, 5>  
Player 2 discards card: 2  
Player 2 Hand: <5>  
4 11 6 8 13 3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2

Player 3 draws a 4  
Player 3 Hand: <5, 4>  
Player 3 discards card: 5  
Player 3 Hand: <4>  
11 6 8 13 3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2 5

Player 4 draws a 11  
Player 4 Hand: <11, 11>  
Player 4 discards card: 11  
Player 4 Hand: <11>  
6 8 13 3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2 5 11

Player 5 draws a 6  
Player 5 Hand: <4, 6>  
Player 5 discards card: 6  
Player 5 Hand: <4>  
8 13 3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2 5 11 6

Player 6 draws a 8  
Player 6 Hand: <1, 8>  
Player 6 discards card: 8  
Player 6 Hand: <1>  
13 3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2 5 11 6 8

Player 1 draws a 13  
Player 1 Hand: <1, 13>  
Player 1 discards card: 1  
Player 1 Hand: <13>  
3 12 12 13 10 9 4 1 5 13 2 9 7 8 5 6 8 2 10 1 13 12 11 10 6 7 12 4 3 6 3 10 11 9 2 8 3 7 9 2 5 11 6 8 1  
Player 1 lost round 1  
Player 2 lost round 1  
Player 3 lost round 1  
Player 4 lost round 1  
Player 5 lost round 1  
Player 6 lost round 1

### ROUND2

DEALER 2 DRAWS TARGET CARD: 7  
DEALER 2 DEALS a 4 TO PLAYER3  
DEALER 2 DEALS a 1 TO PLAYER4  
DEALER 2 DEALS a 8 TO PLAYER5  
DEALER 2 DEALS a 10 TO PLAYER6  
DEALER 2 DEALS a 5 TO PLAYER1  
DEALER 2 DEALS a 2 TO PLAYER2

Player 3 draws a 10

Player 3 Hand: <4, 10>  
Player 3 discards card: 10  
Player 3 Hand: <4>  
1 12 8 13 7 6 5 3 11 3 13 6 4 5 2 9 1 2 12 10 5 8 9 6 8 4 2 8 12 3 13 9 10 11 1 11 6 13 3 11 12 9 7 6 10

Player 4 draws a 1  
Player 4 Hand: <1, 1>  
Player 4 discards card: 1  
Player 4 Hand: <1>  
12 8 13 7 6 5 3 11 3 13 6 4 5 2 9 1 2 12 10 5 8 9 6 8 4 2 8 12 3 13 9 10 11 1 11 6 13 3 11 12 9 7 6 10 1

Player 5 draws a 12  
Player 5 Hand: <8, 12>  
Player 5 discards card: 8  
Player 5 Hand: <12>  
8 13 7 6 5 3 11 3 13 6 4 5 2 9 1 2 12 10 5 8 9 6 8 4 2 8 12 3 13 9 10 11 1 11 6 13 3 11 12 9 7 6 10 1 8

Player 6 draws a 8  
Player 6 Hand: <10, 8>  
Player 6 discards card: 10  
Player 6 Hand: <8>  
13 7 6 5 3 11 3 13 6 4 5 2 9 1 2 12 10 5 8 9 6 8 4 2 8 12 3 13 9 10 11 1 11 6 13 3 11 12 9 7 6 10 1 8 10

Player 1 draws a 13  
Player 1 Hand: <5, 13>  
Player 1 discards card: 5  
Player 1 Hand: <13>  
7 6 5 3 11 3 13 6 4 5 2 9 1 2 12 10 5 8 9 6 8 4 2 8 12 3 13 9 10 11 1 11 6 13 3 11 12 9 7 6 10 1 8 10 5

Player 2 draws a 7  
Player 2 Hand: <2, 7>  
Player 2 wins round 2 with matching card 7

Player 1 lost round 2  
Player 3 lost round 2  
Player 4 lost round 2  
Player 5 lost round 2  
Player 6 lost round 2

### ROUND3

DEALER 3 DRAWS TARGET CARD: 13  
DEALER 3 DEALS a 6 TO PLAYER4  
DEALER 3 DEALS a 2 TO PLAYER5  
DEALER 3 DEALS a 12 TO PLAYER6  
DEALER 3 DEALS a 7 TO PLAYER1  
DEALER 3 DEALS a 5 TO PLAYER2  
DEALER 3 DEALS a 5 TO PLAYER3

Player 4 draws a 9  
Player 4 Hand: <6, 9>  
Player 4 discards card: 9  
Player 4 Hand: <6>  
5 5 8 1 12 1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9

Player 5 draws a 5  
Player 5 Hand: <2, 5>  
Player 5 discards card: 5  
Player 5 Hand: <2>  
5 8 1 12 1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9 5

Player 6 draws a 5  
Player 6 Hand: <12, 5>  
Player 6 discards card: 5  
Player 6 Hand: <12>  
8 1 12 1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9 5 5

Player 1 draws a 8  
Player 1 Hand: <7, 8>  
Player 1 discards card: 7  
Player 1 Hand: <8>  
1 12 1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9 5 5 7

Player 2 draws a 1  
Player 2 Hand: <5, 1>  
Player 2 discards card: 1  
Player 2 Hand: <5>  
12 1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9 5 5 7 1

Player 3 draws a 12  
Player 3 Hand: <5, 12>  
Player 3 discards card: 12  
Player 3 Hand: <5>  
1 6 9 8 12 1 3 8 6 10 6 10 7 10 13 13 2 10 3 3 4 2 8 8 11 4 9 12 1 11 3 2 5 9 11 6 10 13 11 9 5 5 7 1 12  
Player 1 lost round 3  
Player 2 lost round 3  
Player 3 lost round 3  
Player 4 lost round 3  
Player 5 lost round 3  
Player 6 lost round 3

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#### ROUND4

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DEALER 4 DRAWS TARGET CARD: 13  
DEALER 4 DEALS a 1 TO PLAYER5  
DEALER 4 DEALS a 2 TO PLAYER6  
DEALER 4 DEALS a 9 TO PLAYER1  
DEALER 4 DEALS a 9 TO PLAYER2  
DEALER 4 DEALS a 8 TO PLAYER3  
DEALER 4 DEALS a 2 TO PLAYER4

Player 5 draws a 5  
Player 5 Hand: <1, 5>  
Player 5 discards card: 1  
Player 5 Hand: <5>  
12 8 5 12 4 6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 1

Player 6 draws a 12  
Player 6 Hand: <2, 12>  
Player 6 discards card: 2  
Player 6 Hand: <12>  
8 5 12 4 6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 2

Player 1 draws a 8  
Player 1 Hand: <9, 8>  
Player 1 discards card: 8  
Player 1 Hand: <9>  
5 12 4 6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 2 8

Player 2 draws a 5  
Player 2 Hand: <9, 5>  
Player 2 discards card: 9  
Player 2 Hand: <5>  
12 4 6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 2 8 9

Player 3 draws a 12  
Player 3 Hand: <8, 12>  
Player 3 discards card: 8  
Player 3 Hand: <12>  
4 6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 2 8 9 8

Player 4 draws a 4

Player 4 Hand: <2, 4>  
Player 4 discards card: 2  
Player 4 Hand: <4>  
6 7 9 5 10 3 1 2 6 10 6 3 12 5 10 10 11 5 6 1 11 8 3 7 5 11 8 9 3 1 8 13 1 12 4 10 9 13 11 1 2 8 9 8 2  
Player 1 lost round 4  
Player 2 lost round 4  
Player 3 lost round 4  
Player 4 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

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#### ROUND5

---

DEALER 5 DRAWS TARGET CARD: 6  
DEALER 5 DEALS a 6 TO PLAYER6  
DEALER 5 DEALS a 3 TO PLAYER1  
DEALER 5 DEALS a 2 TO PLAYER2  
DEALER 5 DEALS a 4 TO PLAYER3  
DEALER 5 DEALS a 2 TO PLAYER4  
DEALER 5 DEALS a 5 TO PLAYER5

Player 6 draws a 1  
Player 6 Hand: <6, 1>  
Player 6 wins round 5 with matching card 6

Player 1 lost round 5  
Player 2 lost round 5  
Player 3 lost round 5  
Player 4 lost round 5  
Player 5 lost round 5

---

#### ROUND6

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DEALER 6 DRAWS TARGET CARD: 5  
DEALER 6 DEALS a 8 TO PLAYER1  
DEALER 6 DEALS a 13 TO PLAYER2  
DEALER 6 DEALS a 1 TO PLAYER3  
DEALER 6 DEALS a 10 TO PLAYER4  
DEALER 6 DEALS a 13 TO PLAYER5  
DEALER 6 DEALS a 6 TO PLAYER6

Player 1 draws a 9  
Player 1 Hand: <8, 9>  
Player 1 discards card: 8  
Player 1 Hand: <9>  
3 12 1 4 5 8 11 8 9 7 10 2 6 8 12 2 11 11 1 3 8 3 12 10 12 6 1 2 7 5 6 5 5 10 1 9 8 3 2 5 10 11 9 4 8

Player 2 draws a 3  
Player 2 Hand: <13, 3>  
Player 2 discards card: 3  
Player 2 Hand: <13>  
12 1 4 5 8 11 8 9 7 10 2 6 8 12 2 11 11 1 3 8 3 12 10 12 6 1 2 7 5 6 5 5 10 1 9 8 3 2 5 10 11 9 4 8 3

Player 3 draws a 12  
Player 3 Hand: <1, 12>  
Player 3 discards card: 1  
Player 3 Hand: <12>  
1 4 5 8 11 8 9 7 10 2 6 8 12 2 11 11 1 3 8 3 12 10 12 6 1 2 7 5 6 5 5 10 1 9 8 3 2 5 10 11 9 4 8 3 1

Player 4 draws a 1  
Player 4 Hand: <10, 1>  
Player 4 discards card: 1  
Player 4 Hand: <10>  
4 5 8 11 8 9 7 10 2 6 8 12 2 11 11 1 3 8 3 12 10 12 6 1 2 7 5 6 5 5 10 1 9 8 3 2 5 10 11 9 4 8 3 1 1

Player 5 draws a 4

Player 5 Hand: <13, 4>  
Player 5 discards card: 4  
Player 5 Hand: <13>  
5 8 11 8 9 7 10 2 6 8 12 2 11 11 1 3 8 3 12 10 12 6 1 2 7 5 6 5 5 10 19 8 3 2 5 10 11 9 4 8 3 1 1 4

Player 6 draws a 5  
Player 6 Hand: <6, 5>  
Player 6 wins round 6 with matching card 5

Player 1 lost round 6  
Player 2 lost round 6  
Player 3 lost round 6  
Player 4 lost round 6  
Player 5 lost round 6

## **Trial 6**

### ----- ROUND1 -----

DEALER 1 DRAWS TARGET CARD: 1  
DEALER 1 DEALS a 5 TO PLAYER2  
DEALER 1 DEALS a 4 TO PLAYER3  
DEALER 1 DEALS a 3 TO PLAYER4  
DEALER 1 DEALS a 8 TO PLAYER5  
DEALER 1 DEALS a 3 TO PLAYER6  
DEALER 1 DEALS a 9 TO PLAYER1

Player 2 draws a 11  
Player 2 Hand: <5, 11>  
Player 2 discards card: 5  
Player 2 Hand: <11>  
11 3 2 8 6 5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5

Player 3 draws a 11  
Player 3 Hand: <4, 11>  
Player 3 discards card: 4  
Player 3 Hand: <11>  
3 2 8 6 5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5 4

Player 4 draws a 3  
Player 4 Hand: <3, 3>  
Player 4 discards card: 3  
Player 4 Hand: <3>  
2 8 6 5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5 4 3

Player 5 draws a 2  
Player 5 Hand: <8, 2>  
Player 5 discards card: 8  
Player 5 Hand: <2>  
8 6 5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5 4 3 8

Player 6 draws a 8  
Player 6 Hand: <3, 8>  
Player 6 discards card: 3  
Player 6 Hand: <8>  
6 5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5 4 3 8 3

Player 1 draws a 6  
Player 1 Hand: <9, 6>  
Player 1 discards card: 6  
Player 1 Hand: <9>  
5 12 4 5 13 10 7 6 12 13 13 4 1 13 4 9 10 6 2 11 6 1 8 2 9 9 7 1 3 11 2 7 5 7 10 10 8 12 12 5 4 3 8 3 6  
Player 1 lost round 1  
Player 2 lost round 1  
Player 3 lost round 1

Player 4 lost round 1  
Player 5 lost round 1  
Player 6 lost round 1

---

## ROUND2

---

DEALER 2 DRAWS TARGET CARD: 7  
DEALER 2 DEALS a 9 TO PLAYER3  
DEALER 2 DEALS a 8 TO PLAYER4  
DEALER 2 DEALS a 10 TO PLAYER5  
DEALER 2 DEALS a 13 TO PLAYER6  
DEALER 2 DEALS a 6 TO PLAYER1  
DEALER 2 DEALS a 7 TO PLAYER2

Player 3 draws a 11  
Player 3 Hand: <9, 11>  
Player 3 discards card: 9  
Player 3 Hand: <11>  
12 6 11 8 5 12 2 10 8 11 4 3 3 10 1 10 6 3 11 7 13 2 4 13 6 9 4 3 2 9 6 5 9 12 1 5 8 7 13 2 5 1 4 12 9

Player 4 draws a 12  
Player 4 Hand: <8, 12>  
Player 4 discards card: 12  
Player 4 Hand: <8>  
6 11 8 5 12 2 10 8 11 4 3 3 10 1 10 6 3 11 7 13 2 4 13 6 9 4 3 2 9 6 5 9 12 1 5 8 7 13 2 5 1 4 12 9 12

Player 5 draws a 6  
Player 5 Hand: <10, 6>  
Player 5 discards card: 10  
Player 5 Hand: <6>  
11 8 5 12 2 10 8 11 4 3 3 10 1 10 6 3 11 7 13 2 4 13 6 9 4 3 2 9 6 5 9 12 1 5 8 7 13 2 5 1 4 12 9 12 10

Player 6 draws a 11  
Player 6 Hand: <13, 11>  
Player 6 discards card: 11  
Player 6 Hand: <13>  
8 5 12 2 10 8 11 4 3 3 10 1 10 6 3 11 7 13 2 4 13 6 9 4 3 2 9 6 5 9 12 1 5 8 7 13 2 5 1 4 12 9 12 10 11

Player 1 draws a 8  
Player 1 Hand: <6, 8>  
Player 1 discards card: 6  
Player 1 Hand: <8>  
5 12 2 10 8 11 4 3 3 10 1 10 6 3 11 7 13 2 4 13 6 9 4 3 2 9 6 5 9 12 1 5 8 7 13 2 5 1 4 12 9 12 10 11 6

Player 2 draws a 5  
Player 2 Hand: <7, 5>  
Player 2 wins round 2 with matching card 7

Player 1 lost round 2  
Player 3 lost round 2  
Player 4 lost round 2  
Player 5 lost round 2  
Player 6 lost round 2

---

## ROUND3

---

DEALER 3 DRAWS TARGET CARD: 13  
DEALER 3 DEALS a 7 TO PLAYER4  
DEALER 3 DEALS a 4 TO PLAYER5  
DEALER 3 DEALS a 12 TO PLAYER6  
DEALER 3 DEALS a 13 TO PLAYER1  
DEALER 3 DEALS a 3 TO PLAYER2  
DEALER 3 DEALS a 2 TO PLAYER3

Player 4 draws a 11  
Player 4 Hand: <7, 11>



Player 4 discards card: 11  
Player 4 Hand: <7>  
7 6 6 12 9 11 11 2 3 1 10 11 1 2 4 13 5 8 3 4 10 4 6 10 5 9 8 12 9 7 12 8 9 3 6 5 2 6 11 12 6 5 10 1 11

Player 5 draws a 7  
Player 5 Hand: <4, 7>  
Player 5 discards card: 4  
Player 5 Hand: <7>  
6 6 12 9 11 11 2 3 1 10 11 1 2 4 13 5 8 3 4 10 4 6 10 5 9 8 12 9 7 12 8 9 3 6 5 2 6 11 12 6 5 10 1 11 4

Player 6 draws a 6  
Player 6 Hand: <12, 6>  
Player 6 discards card: 12  
Player 6 Hand: <6>  
6 12 9 11 11 2 3 1 10 11 1 2 4 13 5 8 3 4 10 4 6 10 5 9 8 12 9 7 12 8 9 3 6 5 2 6 11 12 6 5 10 1 11 4 12

Player 1 draws a 6  
Player 1 Hand: <13, 6>  
Player 1 wins round 3 with matching card 13

Player 2 lost round 3  
Player 3 lost round 3  
Player 4 lost round 3  
Player 5 lost round 3  
Player 6 lost round 3

---

#### ROUND4

---

DEALER 4 DRAWS TARGET CARD: 4  
DEALER 4 DEALS a 12 TO PLAYER5  
DEALER 4 DEALS a 6 TO PLAYER6  
DEALER 4 DEALS a 11 TO PLAYER1  
DEALER 4 DEALS a 2 TO PLAYER2  
DEALER 4 DEALS a 13 TO PLAYER3  
DEALER 4 DEALS a 12 TO PLAYER4

Player 5 draws a 6  
Player 5 Hand: <12, 6>  
Player 5 discards card: 12  
Player 5 Hand: <6>  
10 12 5 6 4 6 6 10 8 8 11 8 5 2 1 9 11 9 1 11 11 9 4 3 3 11 3 2 7 3 5 6 2 5 12 10 1 7 4 12 12 10 13 9 12

Player 6 draws a 10  
Player 6 Hand: <6, 10>  
Player 6 discards card: 6  
Player 6 Hand: <10>  
12 5 6 4 6 6 10 8 8 11 8 5 2 1 9 11 9 1 11 11 9 4 3 3 11 3 2 7 3 5 6 2 5 12 10 1 7 4 12 12 10 13 9 12 6

Player 1 draws a 12  
Player 1 Hand: <11, 12>  
Player 1 discards card: 12  
Player 1 Hand: <11>  
5 6 4 6 6 10 8 8 11 8 5 2 1 9 11 9 1 11 11 9 4 3 3 11 3 2 7 3 5 6 2 5 12 10 1 7 4 12 12 10 13 9 12 6 12

Player 2 draws a 5  
Player 2 Hand: <2, 5>  
Player 2 discards card: 5  
Player 2 Hand: <2>  
6 4 6 6 10 8 8 11 8 5 2 1 9 11 9 1 11 11 9 4 3 3 11 3 2 7 3 5 6 2 5 12 10 1 7 4 12 12 10 13 9 12 6 12 5

Player 3 draws a 6  
Player 3 Hand: <13, 6>  
Player 3 discards card: 13  
Player 3 Hand: <6>  
4 6 6 10 8 8 11 8 5 2 1 9 11 9 1 11 11 9 4 3 3 11 3 2 7 3 5 6 2 5 12 10 1 7 4 12 12 10 13 9 12 6 12 5 13

Player 4 draws a 4  
Player 4 Hand: <12, 4>  
Player 4 wins round 4 with matching card 4

Player 1 lost round 4  
Player 2 lost round 4  
Player 3 lost round 4  
Player 5 lost round 4  
Player 6 lost round 4

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#### ROUND5

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DEALER 5 DRAWS TARGET CARD: 2  
DEALER 5 DEALS a 9 TO PLAYER6  
DEALER 5 DEALS a 13 TO PLAYER1  
DEALER 5 DEALS a 6 TO PLAYER2  
DEALER 5 DEALS a 5 TO PLAYER3  
DEALER 5 DEALS a 2 TO PLAYER4  
DEALER 5 DEALS a 7 TO PLAYER5

Player 6 draws a 11  
Player 6 Hand: <9, 11>  
Player 6 discards card: 11  
Player 6 Hand: <9>  
10 11 6 7 6 4 5 6 8 4 12 8 9 10 6 12 5 6 11 9 12 2 12 8 5 11 1 4 11 12 3 12 10 9 1 3 12 3 10 1 13 5 3 13 11

Player 1 draws a 10  
Player 1 Hand: <13, 10>  
Player 1 discards card: 13  
Player 1 Hand: <10>  
11 6 7 6 4 5 6 8 4 12 8 9 10 6 12 5 6 11 9 12 2 12 8 5 11 1 4 11 12 3 12 10 9 1 3 12 3 10 1 13 5 3 13 11 13

Player 2 draws a 11  
Player 2 Hand: <6, 11>  
Player 2 discards card: 11  
Player 2 Hand: <6>  
6 7 6 4 5 6 8 4 12 8 9 10 6 12 5 6 11 9 12 2 12 8 5 11 1 4 11 12 3 12 10 9 1 3 12 3 10 1 13 5 3 13 11 13 11

Player 3 draws a 6  
Player 3 Hand: <5, 6>  
Player 3 discards card: 5  
Player 3 Hand: <6>  
7 6 4 5 6 8 4 12 8 9 10 6 12 5 6 11 9 12 2 12 8 5 11 1 4 11 12 3 12 10 9 1 3 12 3 10 1 13 5 3 13 11 13 11 5

Player 4 draws a 7  
Player 4 Hand: <2, 7>  
Player 4 wins round 5 with matching card 2

Player 1 lost round 5  
Player 2 lost round 5  
Player 3 lost round 5  
Player 5 lost round 5  
Player 6 lost round 5

---

#### ROUND6

---

DEALER 6 DRAWS TARGET CARD: 4  
DEALER 6 DEALS a 11 TO PLAYER1  
DEALER 6 DEALS a 7 TO PLAYER2  
DEALER 6 DEALS a 12 TO PLAYER3  
DEALER 6 DEALS a 12 TO PLAYER4  
DEALER 6 DEALS a 10 TO PLAYER5  
DEALER 6 DEALS a 6 TO PLAYER6

Player 1 draws a 10  
Player 1 Hand: <11, 10>

Player 1 discards card: 10  
 Player 1 Hand: <11>  
 12 11 6 12 13 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10

Player 2 draws a 12  
 Player 2 Hand: <7, 12>  
 Player 2 discards card: 12  
 Player 2 Hand: <7>  
 11 6 12 13 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10 12

Player 3 draws a 11  
 Player 3 Hand: <12, 11>  
 Player 3 discards card: 11  
 Player 3 Hand: <12>  
 6 12 13 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10 12 11

Player 4 draws a 6  
 Player 4 Hand: <12, 6>  
 Player 4 discards card: 12  
 Player 4 Hand: <6>  
 12 13 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10 12 11 12

Player 5 draws a 12  
 Player 5 Hand: <10, 12>  
 Player 5 discards card: 10  
 Player 5 Hand: <12>  
 13 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10 12 11 12 10

Player 6 draws a 13  
 Player 6 Hand: <6, 13>  
 Player 6 discards card: 6  
 Player 6 Hand: <13>  
 5 6 13 5 6 3 3 1 9 11 5 8 9 9 3 4 11 8 11 1 6 12 3 10 2 2 5 10 4 7 5 8 12 12 1 5 11 11 13 10 12 11 12 10 6

Player 1 lost round 6  
 Player 2 lost round 6  
 Player 3 lost round 6  
 Player 4 lost round 6  
 Player 5 lost round 6  
 Player 6 lost round 6

## 6 Conclusion

This program is a good demonstration of how one can use multi-threading in a simple card matching game. Threading can be implemented into something more advanced but knowing how to implement it at a lower level proves slow mastery. My implementation meets all required parts from the project assignment description and hopefully my grade will reflect that.