# MindRoll Game Rules

## 1. Game Overview

This is a turn-based dice game where players aim to outwit their opponents through strategic betting and psychological tactics. Each player is assigned a random dice with specific attributes, including a number and a color.

The game supports both two-player and multiplayer modes, with points updated after each round based on the outcome.

#### 2. Dice Attributes

Each player is randomly assigned a dice with the following attributes:

- Number: A random integer between 1 and 6.
- **Color**: Randomly assigned as one of the following five colors:
  - o Red
  - Yellow
  - o Green
  - o Blue
  - o Black

## 3. Gameplay Process

#### (1) Game Start

- Players register and log in, after which the system matches them to a game.
- Each player is assigned a random dice (number 1–6, one of five colors).
- **Two-player mode**: A random player is selected to start the first round.
- Multiplayer mode: A random player is selected to start, with the initial call required to be greater than or equal to 3 × n + 1, where n is the number of players.

#### (2) Turn-Based Calls

- Players take turns to make calls:
  - o **Two-player mode**: The turn alternates between the two players.
  - **Multiplayer mode**: The next player is randomly selected by the system, though some players may repeat before all others have had a turn.
- Each call must be greater than the previous one:
  - Two-player mode: The initial call must be 7 or higher, with a maximum call of 12.

Multiplayer mode: The initial call must be 3 × n + 1 or higher, with a maximum call of 6 × n.

#### (3) Reveal Result

- When a player chooses to reveal the result, the system evaluates the outcome based on the following rules:
  - o **Two-player mode**: The outcome is determined between the two players.
  - Multiplayer mode: The outcome is determined only between the revealing player and the previous caller, with the total sum of all players' dice numbers used for the calculation.

## 4. Winning and Losing Rules

## (1) Color Rule

• If the dice colors of the revealing player and their opponent are identical (e.g., both red), the revealing player automatically loses.

#### (2) Number Rule

• If the dice numbers of the revealing player and their opponent are identical (e.g., both have 4), the revealing player automatically loses.

## (3) Total Sum Rule

- If the colors and numbers are different, the outcome is determined as follows:
  - If the current call > the total sum of all players' dice numbers, the revealing player wins.
  - o If the current call ≤ the total sum of all players' dice numbers, the revealing player loses.

## 5. Scoring Rules

- Winner: The winning player earns +1 point.
- Loser: The losing player loses -1 point.
- Non-participants: Players not involved in the outcome are unaffected.
- **Initial Score**: All players start with a score of **0**.

#### Scoring Example

- Players A, B, and C participate in a game:
  - Player A chooses to reveal the result and challenges Player B.
  - Player A wins, resulting in:
    - Player A: +1 point.
    - Player B: -1 point.
    - Player C: No score change.

## 6. Winning and Losing Examples

## Example 1: Multiplayer Mode - Outcome and Score Update

- Player 1's dice: Number 4, Color Red.
- Player 2's dice: Number 5, Color Green.
- Player 3's dice: Number 6, Color Blue.

#### Flow:

- 1. The system selects Player 1 to start, and Player 1 calls 15.
- 2. The system selects Player 3 to continue, and Player 3 calls 16.
- 3. Player 2 chooses to reveal the result:
  - $\circ$  The total sum of all dice numbers = 4 + 5 + 6 = 15.
  - $\circ$  The current call = **16**.
  - o Player 2 wins, and Player 3 loses.

#### Score Update:

- **Player 2**: +1 point.
- Player 3: -1 point.
- Player 1: No score change.

## Example 2: Two-Player Mode - Reveal Failure and Score Update

- Player 1's dice: Number 3, Color Yellow.
- Player 2's dice: Number 6, Color Blue.

#### Flow:

- 1. Player 1 starts with a call of **10**.
- 2. Player 2 chooses to reveal the result:
  - $\circ$  The total sum of dice numbers = 3 + 6 = 9.
  - $\circ$  The current call = **10**.
  - o Player 2 wins.

## Score Update:

• **Player 2**: +1 point.

Player 1: -1 point.