******Who will win the Last Banana?**

Suppose that you’re on a desert island playing dice with another castaway. The winner’s prize will be the last banana. Here are the rules of the game:

* Each player rolls a die
* If the largest value shown is a 1, 2, 3, or 4, then Player 1 wins
* If the largest value shown is a 5 or 6 then Player 2 wins
1. Who do you think has advantage in this game: Player 1, Player 2, or neither? Make your **best guess** and explain your choice.
2. Play the game 20 times with your partner and record the winner of each game by tallying in the table below.

|  |  |  |
| --- | --- | --- |
| **Player** | **1** | **2** |
| **Tally/Count of Wins** |  |  |
| **Percentage of Wins** |  |  |

1. How many times did Player 1 win? Write this as a proportion.
2. How many times did Player 2 win? Write this as a proportion.
3. Who won more often? Maybe this was only true for your group. Let’s see how the rest of the class did. Write the number of wins for Player 1 in the table on the board.
4. Find the total proportion of wins for Player 1 for the whole class.
5. Find the total proportion of wins for Player 2 for the whole class.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | 1,1 |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |

1. To determine the true probability of Player 1 winning, we should list out all possible rollsthat we could get. Complete the table below to show all possible rolls.
2. Use your table to find the probability of Player 1 winning.
3. Which was closer to the probability you found in #4a, your group data or the classroom data? Why do you think that is?