Probability and statistics

07

Game of dice



We will simulate a game of two dice, the aim of which will be to get an even sum of scores. The player who first achieves this before 5 throws wins.

Write the sample space of the dice game situation described above.



**1**

Bearing the above results in mind, what is more probable when rolling the dice - even (the sum of the faces of the two dice being even) or odd (the sum of the faces of the two dice being odd)?



**2**

Using your calculator, simulate a game of dice trying to meet the objective of the game. To collect the simulation data of your throws, use the following table:



**3**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Throws** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| **Results** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Sum** |  |  |  |  |  |  |  |  |  |  |  |

How many throws did it take to meet your goal?

Share the results with your colleagues, and create a frequency histogram representing the number of throws each one required to perform to reach the goal of the game. What was the minimum number of throws? And, the maximum? What was the average number of throws in the class?



**4**

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