Skee Ball Probability

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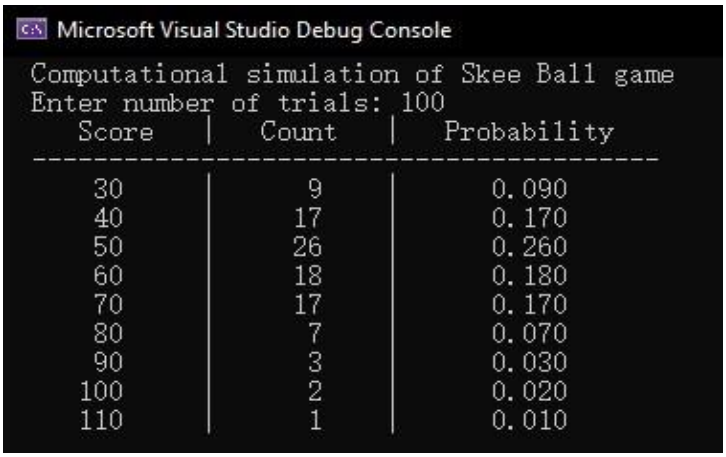
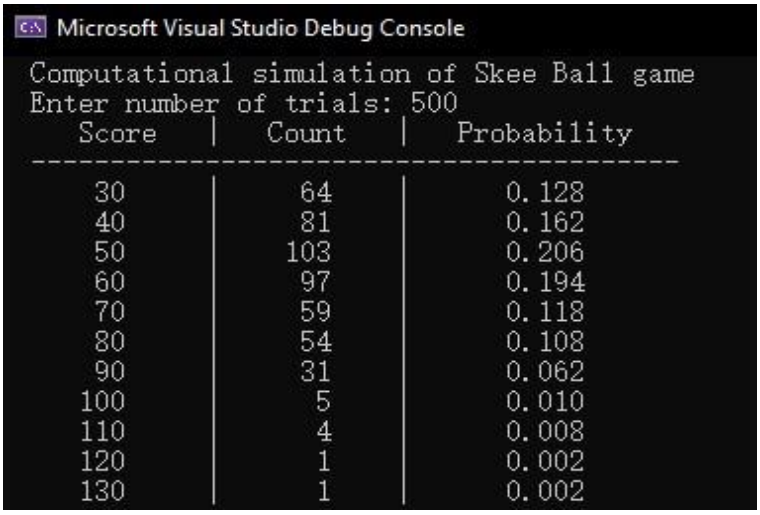
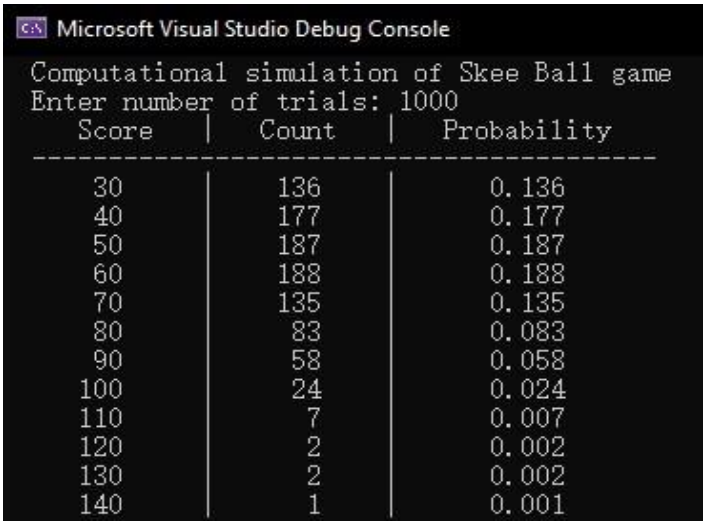
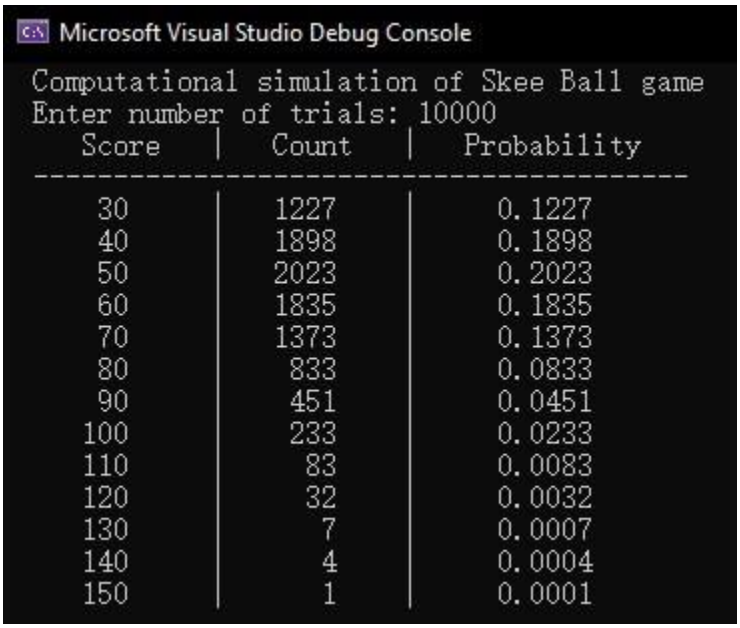
Summary Table









Comparison of experimental results and theoretical results

Sum of P(100,110,120,130,140,150) from simulate 100, 500, 1000, and 10000 trials are 0.03, 0.022, 0.036, 0.036 respectively.

The experimental results are reflecting the theoretical results, we calculated the probability of a total score of at least 100 points is 0.03415. From experimental results, we can see the sum of the probability of scoring 100, 110, 120, 130, 140, and 150 is relatively closer to the theoretical results, and the probability of scoring exactly 100 points never exceed 0.3 from experimental results. From the experimental simulation, we can see score of 50 has the highest probability. To calculate the experimental expected value, we use 50 divided by 3 (rolls per trial), we get 16.67, which is relatively close to our calculated expected value 18.8. The theoretical expected total score for all three balls combined is 56.4. Compare to the experimental simulation, score 50 and 60 has the highest probability.