



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Peter J. McLeod	Project Number J1409
Project Title What Is the Best Method for Generating Dungeons and Dragons Ability Scores?	
Abstract Objectives/Goals Dungeons and Dragons is a fantasy role-playing game in which players create fictional characters and have them go on adventures. It is often played on a board with miniatures and dice. Dice are used to determine character abilities such as strength, dexterity, constitution, intelligence, wisdom and charisma. In the first edition of Dungeons and Dragons, there were five methods for determining ability scores. The purpose of this project was to methodically find out which method gave the most favorable results. Methods/Materials Materials used in this experiment included 21 six-sided dice of varying colors and markings, a dice cup, and a smooth cooking pan. The five methods tested include: the Old (Basic) Dungeons & Dragons method, and Advanced Dungeons & Dragons methods I-IV. In the Old Dungeons & Dragons method, I rolled 6 groups of three six-sided dice and then re-rolled the character if there were two or more ability scores below 6, or if the highest ability score is below 9. In method I, six groups of four six-sided dice are rolled, and the lowest result for each group was discarded. In method II, six groups of 3 six-sided dice were rolled twice, and the highest six scores were retained for each group. In method III, three six-sided dice were rolled six times for each ability category, and the highest group of three is chosen for that category. In method IV, six groups of 3 six-sided dice were rolled a sufficient amount of times to generate 6 ability scores, in order, for 12 characters. Results The method that provided the best results was method III. After that, in order from best to worst results were: method II, method I, Old method, and method IV. Conclusions/Discussion Method III was the best method for generating ability scores because each ability score is rolled for six times each and the highest score is chosen.	
Summary Statement To determine which method for determining ability scores gave the most favorable results in the Dungeons and Dragons fantasy role-playing game.	
Help Received Mom helped me by proofreading my report and practice my speech. Dad helped with data entry and graph creation.	