Combinatorial game theory: An analysis of a fair game

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The game "The princess and the roses" is a combinatorial game and is still an open problem. In the following presentation I have made an analysis of the game. For up to 5 bushes I have proven mathematically the strong bonds with parity, also using MathLab I have made a graphic representation of some 6 bush situations. I tried to find a connection between the number of roses and their divisibility with 3 and 4. Furthermore I found all of the winning positions by fixing the sixth bush to have 2 roses by using my program and made a modified version of the game. Potential future work would mean finding a winning strategy for 6 or more bushes or a potential wining equation or strategy for any situation.