Name(s)	Project Number
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Project Title

Can You Make Money at Blackjack?

Abstract

Objectives/Goals
My object was to see if a player can win consistently at blackjack.

Methods/Materials
Methods
1.Research blackjack playing and betting strategies.
2.Create a computer program to simulate thousands of games of blackjack to test the effectiveness of different playing and betting strategies while varying the numbers of players, number of card decks in the shoe, and the shoe utilization.
3.Simulate 5000 games of blackjack for each combination of 90 different game scenarios
4.Analyze the results from each blackjack game scenario.
5.Graph the results of blackjack simulations with winning balances
Materials
a)2.4GHz Pentium 4 Computer
b)Borland JBuilder 8 Personal
c)Microsoft Word 2000
d)Microsoft Visio 2000

Results
In the ninety (90) different scenarios that I ran only five (5) returned a positive balance, and only one (1) in the five (5) consistently had a winning balance. The fact that these scenarios won did not only depend on the player's strategies, but also the rules of the game (the number of decks, how often the deck is shuffled, and the number of players). Player 4 (the consistent winner), for example, did well in simulations 3014 and 3015 when there were six (6) decks and a reshuffle percentage of twenty-five percent (25%). But in simulations 3019 and 3020, with a reshuffle percentage of fifty percent (50%), Player 4 lost close to $2000 in each scenario. The only constant winner, no matter what the game specifics, was the dealer (won 98% (229/234) of the opportunities).
The best strategies were the one's demonstrated in simulation 3014, Wizard of Odds and True Count. In this scenario, after the 1000 hand mark the player begins to make an outstanding profit. What is important about this discovery is that the player started out rather unstable and lost $275, before he began making a profit. It is equally important to note that had Player 4 locked up money (put away after certain achieving profits of a specified amount), or stopped at his maximum, he would have made the most money in all of the scenarios, $1365.

Summary Statement
I tested popular playing/betting strategiesto see if it is possible to win consistently at blackjack.

Help Received
I used my dad for Java consultation