Name(s)

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Project Number

J1211

Project Title

How to Deal with a 3-Card 16 in Blackjack

Abstract

Objectives/Goals

The objective is to determine if it is reasonable in Blackjack to act differently with a 2-card 16 than with a 3-card 16 against a dealers 10. I think it is reasonable to say that the 3-card 16 has a higher chance of going bust.

Methods/Materials

I calculated the probabilities of drawing all possible cards for all possible combinations of 2-card 16s and 3-card 16s. I used Microsoft Excel to organize the probabilities and I used a standard 52-card deck to better understand the probabilities.

Results

The probability of going bust with a 3-card 16 against a dealers 10 is 61.43%. The probability of going bust with a 2-card 16 is only 59.18%.

Conclusions/Discussion

My conclusion is that it is reasonable to draw to a 2-card 16, but stick on a 3-card 16 against a dealers 10. This conclusion agrees with the single author who made a distinction between the two cases, and disagrees with all the authors who recommended drawing in all cases.

Summary Statement

The probabilities of going bust in Blackjack with a 2-card 16 and a 3-card 16 against a dealers 10 were calculated and compared to see if it is reasonable to draw to a 2-card 16, but stick on a 3-card 16.

Help Received

My father helped teach me the probability theory that I needed for this project. My teacher helped me organize the graph and proofread my papers.