

# Blackjack Calculator

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The JavaScript programmed Blackjack calculator enables the computation of the optimal decisions during a game of blackjack. The computation is depending on the cards that are used up before.



It is a well known fact that the expected gain of the player is changing depending on the mixture of the remaining cards (see e.g. [Wikipedia](#)). So card counting can be used to get a favourable strategy against the bank. The mathematical formulas are based on the actual probabilities of the different card values.



To calculate an optimal strategy please begin with an input of the actual game situation: Click on the button "Decks:..." to increase the number of used card decks. After this use the green buttons of the 4th row to decrease the remaining cards (the red buttons of the 2nd row can be used for undoing). Also select the rule variant. Finally start the computation by clicking on the button "Start". The computation takes approx. 4 seconds using a 3 GHz PC and the Internet Explorer. Using Firefox you will get the results in half of the time.

The computation is an approximation based on the assumption that the actual probability distribution of remaining cards is fixed during the following game. All results are shown depending on the dealer's up card and in total.

**Remarks:** *The values and information provided on this page are distributed without any warranty.* Please notice that the use of electrical devices is prohibited in most casinos. This page is only a demonstration of the power of mathematics in blackjack shown first by Edward Thorp 1960 and described in chapter 17 ("Blackjack: A Las Vegas fairy tale") of my book [Luck, Logic and White Lies: The mathematics of games](#) ([preface](#), [content](#)).