

# Luck vs. Probability

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We wanted to determine how many tries it would take for probability to be accurate. To determine this we used a full deck of playing cards without the two jokers; so a total of 52 cards. We used four main tests to test probability. For the first test we drew two cards without replacement and recorded the colors. The probability of drawing one black and one red is 51%. We drew 100 cards before we collected the data. The second test we drew four with replacement. The probability of drawing one spade out of four draws is 42%. The third test we drew thirteen cards and we were looking to draw only one ten. The probability of drawing only one ten out of thirteen cards without replacement is 44%. For the fourth test we drew thirteen cards without replacement. The probability of drawing this is 70%. We drew 100 times for the first and second test and 200 times for the third and fourth test. We then put all of the data into line graphs with each of their respective probabilities. We found that when you first start your luck is very high and as you do it more and more probabilities accuracy gets better.