



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Abdur R. Amin	Project Number J1201
Project Title The Actual Cost of Credit Cards	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was performed in order to determine which credit card would charge the least amount of interest with regard to the percentage of the balance paid. It also helps in choosing which card is best under certain conditions.</p> <p>Methods/Materials Three top rated credit cards with similar plans were chosen as the subject of this experiment and they were: Blue from American Express, Discover Platinum, and Chase VISA. Three preset starting balances were chosen and were: \$100, \$500, and \$1000 without any additional costs being added. There were cases in which one who did not pay the balance at all, one who paid only the minimum balance, one who paid $\frac{1}{4}$, $\frac{1}{2}$, # of the balance but not less than the minimum payment, and one who paid the entire balance. The spreadsheet was designed to study any starting balance and any percent paid of the balance. All the cases were tested under each plan to determine which card was the best under each condition. After each billing period, the new balance was calculated for each case under all APR#s for the cards.</p> <p>Results The results indicated that Discover was the best choice for one who does not pay at all. However the ending balance after a year with no payments paid at all throughout the year was more than 7.5 times higher than the original balance which was a \$100. If it was \$500, the ending balance increased by about 3.5 times of the original, and for \$1000 it increased about 3 times more than the original. Similar findings agree with the remaining two cards. American Express was better for balances more than \$100 and payments equal or less than the minimum. If one paid the minimum balance, one would be out of debt by the 9th billing cycle with American Express or Discover. The lower rate offered by Discover would allow one to pay off the balance by the eighth month. And VISA would leave one with around \$70 by the end of the year. None of the credit cards ended up with a balance of \$0 after a year if the starting balance was \$500 or \$1000. All the credit cards would have an ending balance of \$0 if one paid a quarter or more of the balance.</p> <p>Conclusions/Discussion One should try to pay as much as one could, for one could pay off their dues faster and end up paying much less than the starting balance. It is worth it at least to pay the minimum balance. That would drop the new balance to about 20% in a year. Overall Discover is the best choice than other studied cards.</p>	
Summary Statement This project calculates the total cost of credit card expenses by comparing different payment methods under different credit card plans.	
Help Received Sister helped design board; teacher corrected and supervised work; high school student taught me more about MS Excel	