## CALIFORNIA STATE SCIENCE FAIR <br> 2009 PROJECT SUMMARY

Name(s)
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Project Number J0311

## Project Title

## What's Your Math "Add'itude?

## Objectives/Goals

Abstract
My objective was to learn if there is a correlation between a parent's attitude towards math and their child's attitude towards math.

## Methods/Materials

I created a survey on excel that had 4 questions each for parent and child pairs worth a total of 20 points. I recorded the parent and child scores in an excel spreadsheet and made a graph of the total scores from each parent/child survey pair. I calculated the absolute value of the difference of the parent/child scores and recorded this value on a scatter plot.I created a line plot from this data to show how many pairs had a particular point difference. I then interpreted the data with the following criteria:
If the difference of the parent/child score was 4 or less there was a correlation between the parent\#s attitude and the child\#s attitude. If the difference was greater than 4, there was no correlation between those samples.

## Results

Forty six surveys were collected. Thirty eight out of the forty six (38 out of 46) parent/child pairs tested were within a 4 point differential of each other, and thus showed correlation. Eight parent/child pairs did not have a close final score and thus did not correlate.

## Conclusions/Discussion

My hypothesis was proved because, based on my criteria, there was a correlation between the parent and child attitudes towards math. I think there was a correlation because if a parent communicates their feelings about math with their child, the child will most likely share the same feelings.
I took my project a step further and looked at the data to see if there was a positive or negative correlation between the parent/child attitudes toward math. I found out that there was a $67 \%$ positive correlation, which meant that when the parent had a positive attitude the child had a positive attitude. I also learned that there was a $15 \%$ negative correlation which meant that when the parent had a negative attitude, the child then had a negative attitude. This project could be really helpful to parents because if they treat their children with a positive Math \#Add\#itude\#, their children will most likely reflect this positive attitude and do better in math.

## Summary Statement

This project investigates if there is a correlation(negative or positive) between a parent's attitude towards math and their child's attitude towards math.

## Help Received

mother helped print out the graphs, mother discussed methods for determining correlation.

