



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Ketaki M. Panse	Project Number S0314
Project Title Math: Are We Born with It?	
Abstract Objectives/Goals The purpose of my project was to see if preschoolers with no formal math education are born with innate math abilities such as visual comparison and visual addition. Methods/Materials I tested 61 preschoolers using a Powerpoint presentation with red and blue dots and numbers. The students were tested in the areas of visual comparison, visual addition, symbol comparison, and symbol addition. There were 12 trials for each visual test, varying ratio of red to blue dots and dot size. The symbol groups consisted of red and blue numbers, and there were 6 trials each. Results The average score for visual comparison was 77.60%, 75.89 % for visual addition, 49.72 % for symbol comparison, and 53.46 % for symbol addition. In the visual tests, the average score for the ratio(red to blue dots) of 4:5 was 66.81 %, 78.28 % for 7:10, and 84.84% for 3:5. Conclusions/Discussion My results support my hypothesis and show that humans have innate mathematical skills. Still, many children in school have trouble with math. The educational system should include our preexisting math skills to help these students have more confidence and view mathematics as something they can do. If computer games like the one I made for this project are used alongside the math curriculum, symbolic arithmetic will be easier for students. In conclusion, my project has proven that humans are born with innate mathematical abilities.	
Summary Statement I tested preschoolers with no formal math education and found that they are born with math abilities.	
Help Received Mr. Post helped with data table, bar graph; testing centers let me test students; parents helped with revision and board.	