



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Kaitlyn M. Sims	Project Number J1224
Project Title Let's Make A Deal: The Monty Hall Theory	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project is to determine if the Monty Hall Theory, created by Marilyn vos Savont, is mathematically correct.</p> <p>Methods/Materials Informed consent was obtained from 100 men and women, randomly selected. The previously state people were each individually shown three cards, face down. They chose one, and a different card that wasn't the winner was shown to them. They were then given the option to switch to the other, unchosen card.</p> <p>Results 12 percent of the subjects changed and won. Zero% of the subjects changed and lost. 30% of the subject stayed with their original choice and won. 58% of the subjects stayed with their original choice and lost. The people who stayed and won can be added with the people who changed and lost, because if the latter hadn't changed, they would have won. The ones who changed and won or stayed and lost go together because if the latter had changed, they would have won. Using that formula, the former section is 30 people or 30%, while the latter section is 70 people or 70%.</p> <p>Conclusions/Discussion Marilyn vos Savont's theory stated if you stayed, 33.33% of the time you would win, and if you changed, 66.66% of the time you would win. I accept my hypothesis that Marilyn vos Savont's theory is correct.</p>	
Summary Statement My project is about testing Marilyn vos Savont's mathematical theory for probability.	
Help Received Mother supervised during human polls/interviews. Both parents assisted with the typing.	