



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Kaitlyn M. Sims	Project Number S1620
Project Title What's the Deal or No Deal?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project was to assess the modern game show, "Deal or No Deal", and to create offers like those given on the live game show to contestants. If I was successful in creating these offers, I would compare the predicted offers to those actually given on the live show in order to determine whether or not the game show is fair.</p> <p>Methods/Materials In this project I used the online game show on the NBC web site, Microsoft Excel, Microsoft Word, Digital Video Recording (DVR), pencils, paper, and the live game show on NBC.</p> <p>Results In the online game, I found that consistently there were visible formulas used in the ninth offer to create the offers dependent upon which amount was dominant and which formula applied. I was able to create formulas for offers when the dominant, or larger, amount of the two remaining in the game was \$1,000,000; \$750,000; \$500,000; \$400,000; \$300,000; \$200,000; \$100,000; and \$1,000.</p> <p>Conclusions/Discussion For Offer 9, I was able to create formulas for eight out of the twenty-five possible dominant amounts (discluding \$.01, which cannot be a dominant amount). However, I was not able to create formulas for the other seventeen possible dominant amounts because of limits in my data. I also only was able to create formulas for Offer 9. By examining the dominant and subdominant amounts within the live game shows, I was able to create and examine five predicted offers on the live show. None of the five offers were close to those predicted using my formula. However, I was unable to create more than that because of the limited amount of data I had collected. Still, this suggests that with more testing, data may show that the offers do deviate heavily from those predicted using the online game show's formulas based upon the offers. This would suggest that the Banker does know what is in the case. My results are overall inconclusive. With more data from the online game show, more formulas can be created, and with more data from the live show, more predicted offers can be created and a better, more definitive conclusion can be reached.</p>	
Summary Statement My project tests the game show, "Deal or No Deal", and uses mathematics to create formulas to create offers like those on the live game show in order to assess whether or not the game is fair.	
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