MATH 367, Spring 2002
PROJECT 1
Due: Tues Feb 11

NAME:

PROBLEM: Let’s Make a Deal
You are in a game show, where you can win $10,000. The game is as follows: there are 3 doors, which are closed. Behind only one of them there is a box containing the $10,000 in $100 bills. All you have to do is to choose one of these doors. Once you made your choice, the host of the show puts you in a quandary by opening one of the other two remaining doors. (Since he knows where the money is, he opens a door without the money behind it). Now there remains only two closed doors: the one you picked and another one. The host gives you the opportunity of changing your choice to the other unopened door.

What is the best Winning strategy (a) to switch or (b) not to switch?

Give a proof that your answer is the best strategy. Solutions without explanations will not be accepted.

Instructions for people registered for the Z-section:
You have to first solve the problem and then write up the explanation of your solution as if you where explaining it to a person who has not thought in mathematical terms in a long time. That is, you have to write a detail explanation of your solution in your own words and in simple terms. The format of your project should be:

(1) statement of problem,
(2) discussion of the solution (that is, I want a long explanation here!!!), and
(3) conclusion.