

Program: goat.cpp

- This program runs 10,000 simulations of the TV game show called "Let's Make a Deal" for simulations in which the player chooses to switch their choice of door and for when they choose to stay with their original door. It returns the percentage of games won for each strategy.

- For more information about the game show go to: <http://www.letsmakeadeal.com/>

- The program follows the following basic logic:

- Set all three doors to 'goats' and then randomly picks one to be the 'car'
- Randomly set a value 1 through 3 for the player's door.
- Set a value for Monty's door to an integer 1–3 that obeys the constraint that Monty never picks the same door as the player and never picks the door that has the car.
- If the player chooses the strategy to switch doors, then determine which door has not been picked given Monty's door and the player's door and then switch player's door choice with the door that Monty did not open
- Determine if the player picked the right door given their choice and the setup of the doors
- Simulate the game in which the player does not switch doors 10,000 times
- Determine win percentage by keeping a counter that increments every time the player wins and dividing that by 10,000
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