

THE MONTY HALL PROBLEM



2

Simulate the game in pairs, one takes the role of the host, the other one the one of the player. Do it 40 times, the first 20 times the player does not change the door, the second 20 times the player changes the door. Note how many cars are being won with either strategy.

Is Marilyn vos Savant right or not?

	not swapping :	swapping:
car:	IIII III 8	IIII IIII IIII 14
goat:	IIII IIII II 12	IIII I 6
chances to win the car:	$8/20 = \mathbf{2/5}$	$14/20 = \mathbf{7/10}$

3

One of the explanations must be wrong. Which one is it and where is the mistake?

Marilyn vos Savant is right. So the mistake must be in the CONTRA explanation. It is correct that after the host has opened a door with a goat there are two doors left and the player does not know behind which one the car is. But that does not mean that the chances are equal! The host knew where the car is and has opened a door with a goat behind. Doing so he has concentrated the chances of two doors on one.