

Brain Teaser #20

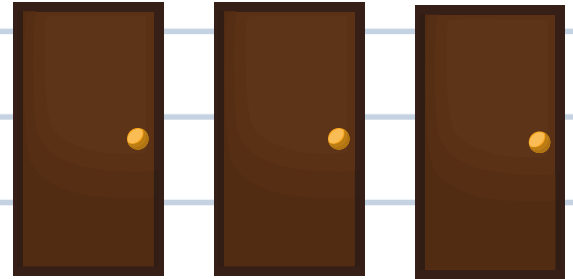
The Monty Hall Problem

A game show contest has 3 closed doors. Hidden behind one door is a car. The other doors hide goats. You may choose one door. What is the probability of winning the car?

$1/3$

Instead of opening the door you chose, the game show host opens one of the others to reveal a goat. You can then stay with your door or change doors.

What is the winning strategy?



There is a $2/3$ probability of winning if you switch, and a $1/3$ probability if you stay. So, switch doors!