

## Math 262

Bonus: Probability Paradoxes

Day 37

1. Here is a famous probability puzzle known as the *Monty Hall problem*:

There are three doors, numbered 1, 2, and 3. Behind one door is a car, but behind the other doors are goats. The host lets you select a door; suppose you select Door 1. The host opens one of the other doors, say Door 2, to reveal a goat. The host then asks if you would like to change your selection to Door 3.

What should you do? Does switching your selection affect your probability of winning the car?

