

## Monty Hall's problem



With a partner, discuss whether it is better to change your choice of door or to stay with your original choice. Give a reason for your decision.

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Simulate the problem many times. Record the results.

What is the experimental probability of changing for the better?

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Can you produce a theoretical argument for this probability? Try to analyse all of the possibilities.

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Suppose Monty Hall hides a car behind one of **four** doors and a goat behind the other three. You choose one door; Monty Hall then opens two other doors to reveal a goat behind each.

Are you better off choosing another door or should you stay with your original choice?

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What is the probability that if you change you will get the car?

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Suppose there are four doors; you choose one, then Monty opens one door to reveal a goat, leaving two closed. How do your chances change this time if you choose a new door?

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