

3 doors \rightarrow 1 has car 2 have goat

1 gets picked and 1 of the 2 leftover gets revealed to be a goat do you now switch doors or keep door

loop x times $\rightarrow x$ specified by user $1 \leq x \leq 100000$

randomize car/goat location

randomly pick 1 door

3 cases:

door 1:

goat shown
switch/keep
result(car or goat)

door 2:

goat shown
switch/keep
result(car or goat)

door 3:

goat shown
switch/keep
result(car or goat)

\rightarrow prob best to make variable
switch for easy referal in
cases
Switch/keep based on
loop # % 2 \rightarrow 0 is keep
 \rightarrow 1 is switch

note: which goat shown
does not matter
because switch or keep
in this case depends on
the loop #

need to declare 3 variables: door 1, door 2, door 3

randomize using randrange from random \rightarrow pick random int
from 1-3 corresponding to
door w/ car
 \rightarrow same for which door
picked

Case door 1 picked

either door 2 or door 3 shown

if door 2 shown

switch → door 3 final

keep → door 1 final

if door 3 shown

switch → door 2 final

keep → door 1 final

Case door 2 picked

either door 1 or door 3 shown

if door 1 shown

switch → door 3 final

keep → door 2 final

if door 3 shown

switch → door 1 final

keep → door 2 final

Case door 3 picked

either door 1 or door 2 shown

if door 1 shown

switch → door 2 final

keep → door 3 final

if door 2 shown

switch → door 1 final

keep → door 3 final