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library(tidyverse)

# sample vectors whether they have one or more elements
resample <- function(x, ...) x[sample.int(length(x), ...)]

monty <- function(doors = 3, monty_opens_doors = 1, n = 10000, seed = 0) {
  set.seed(seed)
  tibble(car = sample(doors, n, replace = TRUE),
         choice = sample(doors, n, replace = TRUE)) %>%
    rowwise() %>%
    mutate(monty_chose = list(resample(setdiff(1:doors, c(car, choice)),
monty_opens_doors)),
         win_no_switch = car == choice,
         win_switch = car == resample(setdiff(1:doors, unlist(c(choice,
monty_chose))), 1)) %>%
    ungroup() %>%
    summarise(win_if_not_switching = sum(win_no_switch) / n() * 100,
              win_with_switching = sum(win_switch) / n() * 100)
}

> monty() # classic values
# A tibble: 1 x 2
  win_if_not_switching win_with_switching

1             33.4             66.6
> monty(10) # more doors (10), 1 opened
# A tibble: 1 x 2
  win_if_not_switching win_with_switching

1             10.4             11.0
> monty(10, 3) # 10 doors, 3 opened
# A tibble: 1 x 2
  win_if_not_switching win_with_switching

1             10.4             15.2

```

So, switch...