

testing barista example

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# 20/7/2021
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# testing barista example

rm(list=ls())

N <- 10^4

set.seed(123)
barista <- sample(0:1, size=N, replace=T, prob=c(2/7,5/7))

coffee <- numeric(N)

coffee.probs <- array(c(.2,.5,.3,.8,.15,.05),dim=c(3,2))

system.time({
  for(i in 1:N){
    coffee[i] <- sample(c('Ex','Gd','Ss'), size =1 ,
                      replace=T,
                      prob=coffee.probs[,barista[i]+1])
  }
})
```

```
##      user  system elapsed
##    0.087    0.024    0.111
```

```
# evaluating conditional inverse probability
# Pr(Expert|Excellent)

# (remember: mean of a binary vector = proportion of ones in that vector)

mean(barista[coffee=='Ex'])
```

```
## [1] 0.9122029
```