

```

> foo <- function(x) {
+ n <- x
+ Sigma <- 9*matrix(c(1.0, 0.5, 0.5, 1.0), 2, 2)
+ dat <- MASS::mvrnorm(n = n, c(69, 69), Sigma) %>%
+ data.frame() %>% setNames(c("x", "y"))
+ rmse <- replicate(100, {
+ test_index <- createDataPartition(dat$y, times = 1, p = 0.5, list = FALSE)
+ train_set <- dat %>% slice(-test_index)
+ test_set <- dat %>% slice(test_index)
+ fit <- lm(y ~ x, data = train_set)
+ y_hat <- predict(fit, newdata = test_set)
+ sqrt(mean((y_hat-test_set$y)^2))
+ })
+ c(mean(rmse), sd(rmse))
+ }
> n <- c(100, 500, 1000, 5000, 10000)
> set.seed(1, sample.kind = "Rounding")
Warning message:
In set.seed(1, sample.kind = "Rounding") :
  non-uniform 'Rounding' sampler used
> sapply(n, foo)
      [,1]      [,2]      [,3]      [,4]      [,5]
[1,] 2.4977540 2.72095125 2.55554451 2.62482800 2.61844227
[2,] 0.1180821 0.08002108 0.04560258 0.02309673 0.01689205
>

```