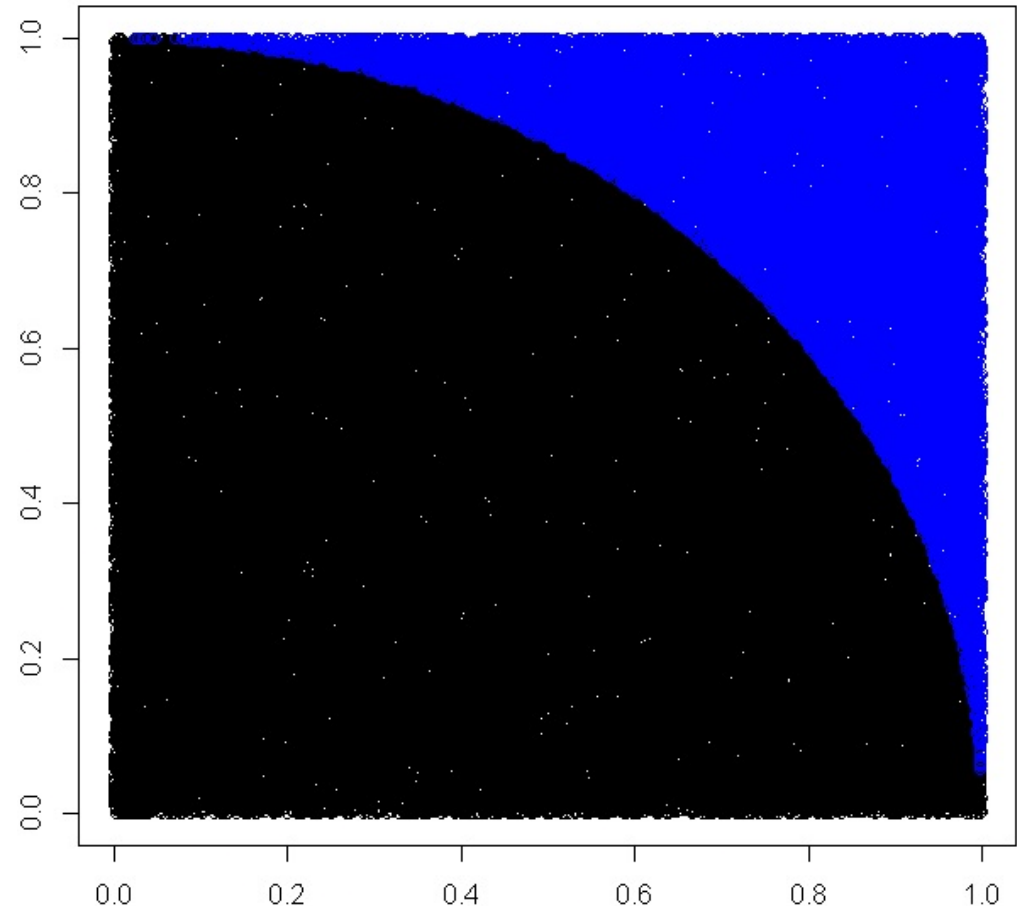


Example: Calculate PI using montecarlo

1. Randomize a number of x and y values (0-1)
2. Calculate distance from origo
3. Count values with distance ≤ 1
4. Multiply by 4 since we have a quarter circle

Example on how to calculate PI from 100 values

```
y <- runif(100)
x <- runif(100)
z <- sqrt(x^2+y^2)
res <- length(which(z<=1))*4/length(z)
```



Lab: Calculate PI using apply

1. Calculate PI using montecarlo and any of the **apply** functions
2. Time your code