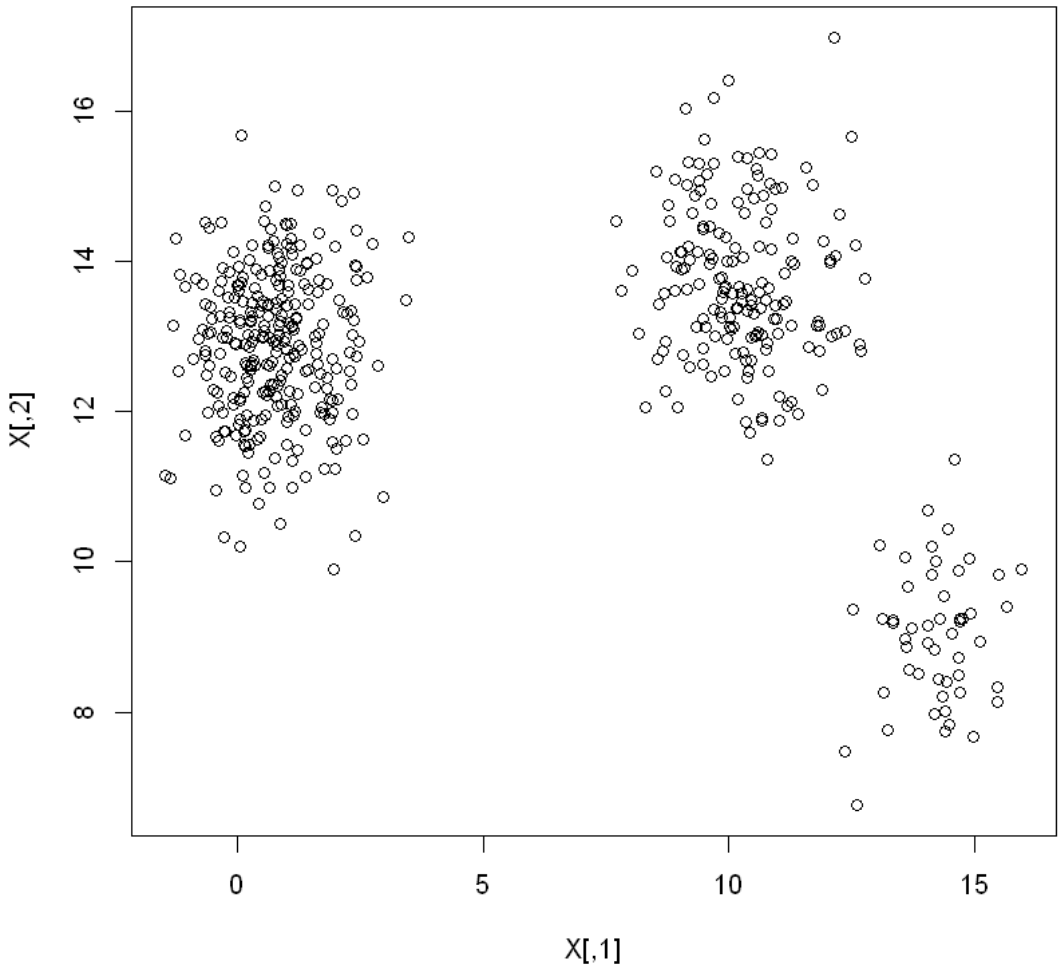
20180528???????????

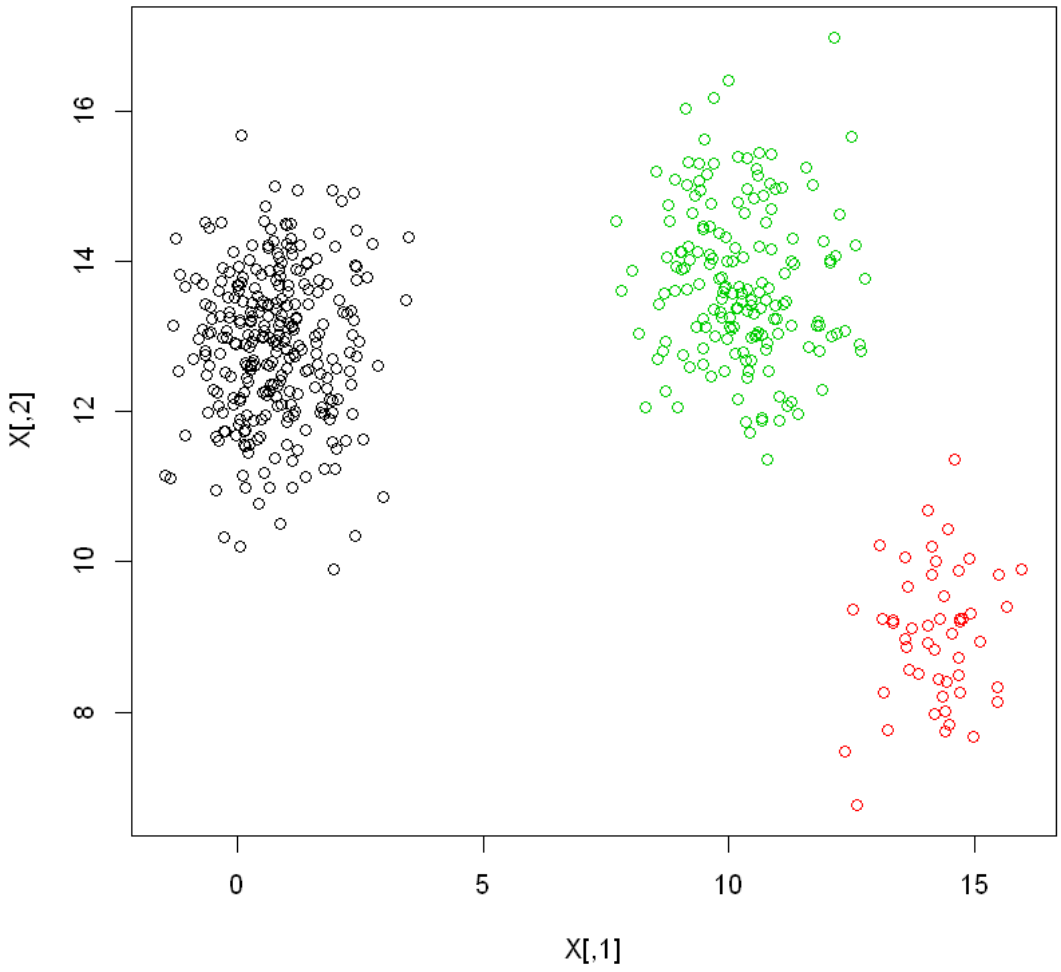
May 28, 2018

In [1]:
```
n.gr <- 3 # number of component distributions
d <- 2 # dimension
# Fraction of n.gr distributions
f <- runif(n.gr)
f <- f/sum(f)
f
# means
ms <- matrix(runif(n.gr*d),ncol=d)*15
# var-covar matrices are unit matrix for all components

# Sampling
n.sample <- 500
gr.label <- sample(1:3,n.sample,replace=TRUE,prob=f)
table(gr.label)
# locations of samples
X <- matrix(0,n.sample,d)
for(i in 1:n.sample){
    this.gr <- gr.label[i]
    X[i,] <- c(rnorm(1,ms[this.gr,1]),rnorm(1,ms[this.gr,2]))
}

plot(X)
plot(X,col=gr.label) # color with group label
```

1. 0.570802336345698 2. 0.110064925389679 3. 0.319132738264623

```
gr.label
  1   2   3
278  51 171
```


X[,2]
16
14
12
10
8
0
5
10
15
X[,1]



SVM SVM SVM SVM