

```
#KNN
myd$grape=factor(myd$grape) num.vars=sapply(myd, is.numeric)
myd[num.vars]=lapply(myd[num.vars], scale)
train.size=round(0.67*nrow(myd))
set.seed(1234)
id.train=sample(1:nrow(myd), train.size, replace=FALSE)
train=myd[id.train,]
test=myd[-id.train,]
train.def=myd$grape[id.train]
test.def=myd$grape[-id.train]
library(class)
knn.1=knn(train, test, train.def,k=1)
knn.3=knn(train, test, train.def,k=3)
knn.5=knn(train, test, train.def,k=5)
100*sum(train.def==knn.1)/100
100*sum(train.def==knn.3)/100
100*sum(train.def==knn.5)/100
```