

## Exercici 5

(a)

```
dd <- read.table("http://www-eio.upc.es/~jan/Data/MVA/kernels.dat", header = T)
head(dd)
```

```
##      area perimeter compactness length width asymmetry groove
## 1 15.26      14.84      0.8710  5.763 3.312      2.221  5.220
## 2 14.88      14.57      0.8811  5.554 3.333      1.018  4.956
## 3 14.29      14.09      0.9050  5.291 3.337      2.699  4.825
## 4 13.84      13.94      0.8955  5.324 3.379      2.259  4.805
## 5 16.14      14.99      0.9034  5.658 3.562      1.355  5.175
## 6 14.38      14.21      0.8951  5.386 3.312      2.462  4.956
```

```
summary(dd)
```

```
##      area      perimeter      compactness      length
## Min.   :11.23  Min.   :12.63  Min.   :0.8392  Min.   :4.902
## 1st Qu.:13.75  1st Qu.:13.96  1st Qu.:0.8689  1st Qu.:5.385
## Median :14.36  Median :14.32  Median :0.8805  Median :5.534
## Mean   :14.33  Mean   :14.29  Mean   :0.8801  Mean   :5.508
## 3rd Qu.:15.04  3rd Qu.:14.73  3rd Qu.:0.8904  3rd Qu.:5.677
## Max.   :17.08  Max.   :15.46  Max.   :0.9183  Max.   :6.053
##      width      asymmetry      groove
## Min.   :2.850  Min.   :0.7651  Min.   :4.519
## 1st Qu.:3.134  1st Qu.:1.8265  1st Qu.:4.925
## Median :3.244  Median :2.5455  Median :5.094
## Mean   :3.245  Mean   :2.6674  Mean   :5.087
## 3rd Qu.:3.378  3rd Qu.:3.3010  3rd Qu.:5.223
## Max.   :3.683  Max.   :6.6850  Max.   :5.877
```