week3 lecture notes

*#install.packages('magrittr')*

**library**(magrittr)

**library**(datasets)

x<-c(1,2,5,6)

matrix(x, nrow = 2,byrow = T)

## [,1] [,2]

## [1,] 1 2

## [2,] 5 6

t(matrix(x,nrow=2))

## [,1] [,2]

## [1,] 1 2

## [2,] 5 6

x<-c(1,2,5,6)

mymatrix<-matrix(x,nrow=2)

t.matrix<-t(mymatrix)

t.matrix

## [,1] [,2]

## [1,] 1 2

## [2,] 5 6

t(matrix(c(1,2,5,6),nrow=2))

## [,1] [,2]

## [1,] 1 2

## [2,] 5 6

dim(matrix(c(1,2,5,6,7,8),nrow=2))

## [1] 2 3

my.matrix<-matrix(c(1,2,5,6,7,8),nrow=2)

my.matrix

## [,1] [,2] [,3]

## [1,] 1 5 7

## [2,] 2 6 8

my.matrix[,2]

## [1] 5 6

*# my.matrix[2,c(2,3)]*

*# my.matrix[2,2:3]*

*# my.matrix[2,c(-1,-3)]*

*# my.matrix[2,c(TRUE,TRUE,FALSE)]*

*# my.matrix[my.matrix<5]*

*#*

*# my.matrix[2,my.matrix[2,]<5]*

*#my.matrix[my.matrix[,2]>5,2]*

rownames(my.matrix)<-c("myfirstrow","mysecondrow")

my.matrix

## [,1] [,2] [,3]

## myfirstrow 1 5 7

## mysecondrow 2 6 8

*# mean(my.matrix[,2])*

*# mean(my.matrix[,3])*

*#*

*# apply(my.matrix, 2, mean)*

apply(my.matrix, 2, mean)>mean(my.matrix)

## [1] FALSE TRUE TRUE

my.matrix[,apply(my.matrix, 2, mean)>mean(my.matrix)]

## [,1] [,2]

## myfirstrow 5 7

## mysecondrow 6 8

mynumbers=c(1, 2, 5)

myletters=c('a','b','c')

*#my.first.df$mynumbers>3*

my.first.df=data.frame(mynumbers,myletters)

my.first.df[my.first.df$mynumbers<3,]

## mynumbers myletters

## 1 1 a

## 2 2 b