

#Exercice d'application sans aide

#Exercice A

```
Var.x<-c(0,2,5,6)
Var.v<-seq(0,100,by=4)
Var.v[1]
Var.v[3]
Extract.v<-Var.v[c(1,3)]
Var.v[1]<--1
Var.v[c(6,10)]<c(-2,-2)
Var.x2<-ifelse(Var.x>2,T,F)
Var.x[Var.x2==T]
```

#Exercice B

```
Vect.X<-c("bleu","blanc","rouge","rouge")
Vect.X
Vect.X1<-rep(Vect.X,2)
Vect.X1
Vect.Y<-rep(Vect.X,3)
Vect.Y
Vect.Z<-ifelse(Vect.Y=="rouge",T,F)
Vect.Y[Vect.Z==F]
```

#Exercice C

```
Mat.1<-matrix(c(1,0,0,0,0,1,0,0,1,2,3,4,0,0,0,3,1,1,1,1),ncol=4,byrow=T)
Var.1<-c("Y1","Y2","Y3","Y4")
Ident.1<-c("EPI001","EPI002","EPI003","EPI004","EPI005")
Mat.1
dimnames(Mat.1)<-list(Ident.1,Var.1)
Mat.1
Mat.1["EPI004",]
Mat.1[, "Y3"]
Smat.1<-Mat.1[c(2,3),c(1,3)]
Smat.1
Mat.1<-cbind(Mat.1,c(0,0,0,0,1))
Mat.1
Mat.1<-rbind(Mat.1,c(0,0,0,0,0))
Mat.1
Var.1<-c("Y1","Y2","Y3","Y4","Y5")
Ident.1<-c("EPI001","EPI002","EPI003","EPI004","EPI005","EPI006")
Mat.1
dimnames(Mat.1)<-list(Ident.1,Var.1)
Mat.1
```

#ExerciceD

```
Ident<-c("Marie","Jacques","Anna","Jean","Joseph","Paul","Isabelle")
Age<-seq(20,50,by=5)
Poids<-seq(50,86,by=6)
Taille<-seq(1.6,1.66,by=0.01)
Heavy<-ifelse(Poids>78,T,F)
Imc<-Poids/(Taille^2)
Mydata.1<-data.frame(Ident, Age,Poids,Taille,Heavy,Imc)
Mydata.1
Surpoids<-Mydata.1[Mydata.1$Imc>25,]
Surpoids$Ident
```

#Exercice E

```
Sexe<-rep(c("Garçon","Fille","Garçon","Fille","Garçon"),c(4,3,2,6,5))
Tabac<-rbinom(20,1,0.3)
Toux<-rbinom(20,1,0.25)
Mydata.2<-data.frame(Sexe,Tabac,Toux)
A<-table(Mydata.2$Sexe)
Sexratio<-A[2]/A[1]
Sexratio
```