一、

1

```
dataframe <- data.frame(name = c("zhangsan","lisi","wangwu","zhaoliu")
                        height = c(170,165,178,174),
                        weight = c(50,60,59,62),
                        age = c(13,18,45,32))
dataframe$weight <- as.factor(dataframe$weight)
```

	name	height	weight	age
1	zhangsan	170	50	13
2	lisi	165	60	18
3	wangwu	178	59	45
4	zhaoliu	174	62	32

2、

```
dataframe$weight <- as.numeric(as.character(dataframe$weight))
```

3、

```
> mean(dataframe$height[dataframe$age<20])
[1] 167.5
> mean(dataframe$weight[dataframe$age>=20])
[1] 60.5
```

二、

1、

```
dataframe <- data.frame(name = c("小张","小李","小王","小叶"),
                        score = c(90,87,54,51))
dataframe$name[dataframe$score<60]
```

```
> dataframe$name[dataframe$score<60]
[1] 小王 小叶
Levels: 小李 小王 小叶 小张
```

2、

```
> xiaofenscore <- 87*0.6+80*0.4;xiaofenscore
[1] 84.2
> xiaolu <- 76*0.6+85*0.4;xiaolu
[1] 79.6
```

3、

```
day1 <- c("mon","tue","wen")
day2 <- c("day1+thu","fri")
```

三、

1、

```
dataframe <- data.frame(name = c("lieren","shushi","saman"),
                        height = c(180,180,210),
                        weight = c(65,70,85))
```

2、

```r
dataframe$name <- as.character(dataframe$name)
dataframe <- rbind(dataframe,c("fashi",165,45))
```

3、

```r
dataframe <- dataframe[dataframe$name!="shushi",]
```

四、

1、

```r
dataframe <- data.frame(name=c("A","B","C","D"),gender=c("男","女","女","男"),is.plus=c("是","是","否","否"),score=c(58,59,85,90),stringsAsFactors=F)
dataframe$score[dataframe$score<60&dataframe$is.plus=="是"] <- dataframe$score[dataframe$score<60&dataframe$is.plus=="是"]+10
dataframe$score[dataframe$score>80&dataframe$gender=="男"] <- dataframe$score[dataframe$score>80&dataframe$gender=="男"]-5
```

2、

```r
dataframe <- rbind(dataframe,c("E","女","否",89))
```

3、

```r
dataframe$acti <- 0
dataframe$acti[dataframe$gender=="男"] <- "否"
dataframe$acti[dataframe$gender=="女"] <- "是"
```

五、

1、

```r
score <- c(61,75,90,82,mean(c(61,75,90,82)))
```

2、

```r
score1 <- c(rep(61,4),rep(75,2),rep(90,1),rep(82,4),rep(mean(c(61,75,90,82)),2))
```

3、

```r
score2 <- score*0.7 +c(30,24,33,28,25)
```

六、

1

```r
dataframe <- data.frame(name=c("A","B","C","D"),gender=c("男","男","女","女"),yangwo=c(30,55,55,70),run=c(11,13,10,9),jump=c(2,2.5,3.5,4),stringsAsFactors=F)
```

2、

```r
dataframescore <- function(a,b,c,d,e)
{ score <- array(0,4);
  score[which(dataframe$gender=="男"&dataframe[,a]>=b)] <- 100;
  score[which(dataframe$gender=="男"&dataframe[,a]<b)] <- 100-c*(b-dataframe[which(dataframe$gender=="男"&dataframe[,a]<b),a]);
  score[which(dataframe$gender=="女"&dataframe[,a]>=d)] <- 100;
  score[which(dataframe$gender=="女"&dataframe[,a]<d)] <- 100-e*(d-dataframe[which(dataframe$gender=="女"&dataframe[,a]<d),a]);
  return(score)
}
dataframescore1 <- function(a,b,c,d,e)
{ score <- array(0,4);
score[which(dataframe$gender=="男"&dataframe[,a]<=b)] <- 100;
score[which(dataframe$gender=="男"&dataframe[,a]>b)] <- 100-c*(dataframe[which(dataframe$gender=="男"&dataframe[,a]>b),a]-b);
score[which(dataframe$gender=="女"&dataframe[,a]<=d)] <- 100;
score[which(dataframe$gender=="女"&dataframe[,a]>d)] <- 100-e*(dataframe[which(dataframe$gender=="女"&dataframe[,a]>d),a]-d);
return(score)
}

score <- t(rbind(dataframescore(3,70,1,60,1),dataframescore1(4,9,10,10,10),dataframescore(5,4.5,20,3,20)))
score1 <- cbind(dataframe,apply(score,1,mean))
```

3、

```r
dataframe[3,4] <- dataframe[3,4]-5
score <- t(rbind(dataframescore(3,70,1,60,1),dataframescore1(4,9,10,10,10),dataframescore(5,4.5,20,3,20)))
score1 <- cbind(dataframe,apply(score,1,mean))
```

七、

1、
```
165*1.3
```

2、
```
dataframe <- dataframe(names=c("aa","bb","cc","dd"),weight=c(65,66,64,63))
```

八、

1、
```
seq(1,100,1)
seq(2,100,2)
c(rep(1,3),rep(2,2),rep(3,4))
```

2、
```
dataframe <- data.frame(name=c("xiaoli","xiaowang","xiaohong"),height=c(188,177,166),stringsAsFactors = F)
dataframe <- cbind(dataframe,score=c(66,77,88))
dataframe[dataframe$name=="xiaoli",3] <- 99
```

3、
```
dataframe[which(dataframe$score==min(dataframe$score)),1]
dataframe[which(dataframe$height==max(dataframe$height)),1]
dataframe[which(dataframe$height>170&dataframe$score>60),1]
```

九、

3、
```
a <- matrix(c(1,1,2,4),nrow = 2,byrow = T)
b <- matrix(c(30,88),nrow = 2)
solve(a,b)
```