1.

> Data=read.table("F:/xhtest.txt",header=T,na.strings="NA",sep="\t")

> Data

Gender FSIQ VIQ PIQ Weight Height MRI\_Count

1 Female 133 132 124 118 64.5 816932

2 Male 140 150 124 ? 72.5 1001121

3 Male 139 123 150 143 73.3 1038437

4 Male 133 129 128 172 68.8 965353

5 Female 137 132 134 147 65.0 951545

6 Female 99 90 110 146 69.0 928799

7 Female 138 136 131 138 64.5 991305

8 Female 92 90 98 175 66.0 854258

9 Male 89 93 84 134 66.3 904858

10 Male 133 114 147 172 68.8 955466

11 Female 132 129 124 118 64.5 833868

12 Male 141 150 128 151 70.0 1079549

13 Male 135 129 124 155 69.0 924059

14 Female 140 120 147 155 70.5 856472

15 Female 96 100 90 146 66.0 878897

16 Female 83 71 96 135 68.0 865363

17 Female 132 132 120 127 68.5 852244

18 Male 100 96 102 178 73.5 945088

19 Female 101 112 84 136 66.3 808020

20 Male 80 77 86 180 70.0 889083

21 Male 83 83 86 ? ? 892420

22 Male 97 107 84 186 76.5 905940

23 Female 135 129 134 122 62.0 790619

24 Male 139 145 128 132 68.0 955003

25 Female 91 86 102 114 63.0 831772

26 Male 141 145 131 171 72.0 935494

27 Female 85 90 84 140 68.0 798612

28 Male 103 96 110 187 77.0 1062462

29 Female 77 83 72 106 63.0 793549

30 Female 130 126 124 159 66.5 866662

31 Female 133 126 132 127 62.5 857782

32 Male 144 145 137 191 67.0 949589

33 Male 103 96 110 192 75.5 997925

34 Male 90 96 86 181 69.0 879987

35 Female 83 90 81 143 66.5 834344

36 Female 133 129 128 153 66.5 948066

37 Male 140 150 124 144 70.5 949395

38 Female 88 86 94 139 64.5 893983

39 Male 81 90 74 148 74.0 930016

40 Male 89 91 89 179 75.5 935863

> head(Data,n=5)

Gender FSIQ VIQ PIQ Weight Height MRI\_Count

1 Female 133 132 124 118 64.5 816932

2 Male 140 150 124 ? 72.5 1001121

3 Male 139 123 150 143 73.3 1038437

4 Male 133 129 128 172 68.8 965353

5 Female 137 132 134 147 65.0 951545

> which(is.na(Data)==TRUE)

[1] 162 181 221

> summary(Data$VIQ)

Min. 1st Qu. Median Mean 3rd Qu. Max.

71.0 90.0 113.0 112.4 129.8 150.0

> summary(Data$PIQ)

Min. 1st Qu. Median Mean 3rd Qu. Max.

72.00 88.25 115.00 111.00 128.00 150.00 > sumary(Data$Weight,na.rm=NA)

2.

>site=http:/www.stat.berkeley.edu/users/statlabs/data/babies.data

>BABIES=read.table(site,header=T,na.strings="NA",sep=" ")

#(a)

> any(which(BABIES$bwt==999))

[1] FALSE

> any(which(BABIES$gestation==999))

[1] TRUE

> any(which(BABIES$parity==9))

[1] FALSE

> any(which(BABIES$hight==999))

[1] FALSE

> any(which(BABIES$weight==999))

[1] TRUE

> any(which(BABIES$smoke==9))

[1] TRUE

> gw=subset(BABIES,gestation!=999,weight!=999)

> CLEAN=subset(gw,,smoke!=9)

#(b)

> x1=BABIES$weight[ which(BABIES$smoke=="1")]

> x2=BABIES$weight[ which(BABIES$smoke=="0")]

> boxplot(x1,x2,main="Data of BABIES Weight",ylab="weight",xlab="Condition")



#(c)

> sum(CLEAN$weight)

[1] 187709

> summary(CLEAN$weight)

Min. 1st Qu. Median Mean 3rd Qu. Max.

87.0 115.0 126.0 153.5 140.0 999.0

3

> 1-pnorm(450,350,75)

[1] 0.09121122

4. > pchisq(8,10)

[1] 0.3711631

> 1-pchisq(6,10)

[1] 0.8152632

> qchisq(0.05,10)

[1] 3.940299

5.

> curve(dnorm(x),-5,5,main="density curve",col=1)

> curve(dt(x,10),-5, 5, col=2, add=T)

> curve(dt(x,6),-5, 5, col=3, add=T)

> curve(dt(x,3),-5, 5, col=4, add=T)

> curve(dt(x,1),-5,5, col=5, add=T)

> legend(2,0.3,legend=c("norm","free=10","free=6", "free=3","free=1"),lty=1,col=c(1,2,3,4,5))

