hw\_0328  
1.  
aa=matrix(c(1,100,9,91),nrow=2)  
# p-value  
out\_fisher=fisher.test(aa)  
out\_fisher$p.value  
#95% CI  
out\_fisher$conf.int  
#odds ratio  
out\_fisher$estimate  
  
2.  
myfun = function(input){  
 return(-2\*input)  
}  
myfun(1)  
myfun(2)  
myfun(3)  
  
   
3.  
(a)  
mydata=read.csv("hw1\_0328.csv",header=T)  
##G2\_mean  
G2\_mean=mean(mydata$G2)  
G2\_mean  
  
##G2\_max  
mydata[which(mydata$G2==max(mydata$G2)),]  
  
##G2\_min  
mydata[which(mydata$G2==min(mydata$G2)),]  
  
  
(b)  
mydata2=read.csv("hw2\_0328.csv",header=T)  
output=cbind(mydata,mydata2[,5:9])  
write.csv(output,"output1\_0328.csv",row.names=F)  
  
(c)  
mydata=read.csv("hw3\_0328.csv",header=T)  
odd\_idx=seq(1,29,2)  
even\_idx=seq(2,30,2)  
temp\_clinical=mydata[odd\_idx,1:4]  
temp\_GE=mydata[even\_idx,5:9]  
temp\_out=cbind(temp\_clinical,temp\_GE)  
write.csv(temp\_out,"output2\_0328.csv",row.names=F)  
  
  
4.  
(a)  
mydata=read.csv("hw1\_0328.csv",header=T)  
pval=c()  
t\_out1=t.test(mydata$G1~mydata$Virus)  
t\_out2=t.test(mydata$G2~mydata$Virus)  
t\_out3=t.test(mydata$G3~mydata$Virus)  
t\_out4=t.test(mydata$G4~mydata$Virus)  
t\_out5=t.test(mydata$G5~mydata$Virus)  
pval[1]=t\_out1$p.value  
pval[2]=t\_out2$p.value  
pval[3]=t\_out3$p.value  
pval[4]=t\_out4$p.value  
pval[5]=t\_out5$p.value  
write(pval, "output2.txt",sep=",")  
  
(b)  
  
  
## 類別變數  
  
out\_lr=summary(lm(G5~as.factor(Hospital)+as.factor(Gender)+as.factor(Virus),data=mydata))  
out\_lr  
  
  
(c)  
  
## 類別變數  
  
out\_an=anova(lm(G2~as.factor(Hospital),data=mydata))  
out\_an