Example R Latex File

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1 Task 1

The following displays the listing for the `R` commands used in Task 1.

The `R` script file:

```
# R code for part (a).
sf2 <- function(a1, a2, a3){
x <- sqrt(a1^2 + a2^2 + a3^2)
}

# R code for part (b).
```

To display the result of running this function in the `R` console use the `verbatim` environment:

```
# Result part (a).
ans <- sf2(a1=2,a2=3,a3=4)
ans
[1] 5.385165

# Result part (b).
```

The figure obtained by saving the graph created in Task 1 as a Png file-type in the `R` console can be inserted using

Figure 1: My first plot

1.1 Discussion of Results Task 1

From the results printed in `R` for part (a), it can be concluded that....

The results of part (b) indicate that...

2 Task 2

The following displays the listing for the R commands used in Task 2.
The R script file:

```
#BlackJack By Cristian
#first run
c<-52;
t<-2
a<-ceiling(runif(t,1,c)) #gives two random cards from starting deck for player
  p<-a%%13 #modules the number the card to a range from 1 to 13
tp1<-sum(p); #sums the value of the players cards
h<-ceiling(runif(t,1,c-t)) #dealers draw from remaining of deck
 x<-h%%13 #modules the number of the card
tx1<-sum(x); #sums the value of the dealers cards
#if ((tp1 | tx1)>21){
 # break
#}

#second run, taking a hit or standing, likely to bust
if (tp1 <= 17){
 s<-ceiling(runif(1,1,c-4))
  w<-s%%13
    tp2<-w+tp1
} else (break)

if (tx1<=17){
 u<-ceiling(runif(1,1,c-5));
  e<-u%%13
    tx2<-e+tx1
} else (break)
#if ((tp2 | tx2)>21){
 # break
#}
#third run, taking a hit or standing. Highly likely to bust.
if (tp2<=17){
  z<-ceiling(runif(1,1,c-6))
    v<-z%%13
      tp3<-v+tp2
} else (break)

if (tx2<=17){
  n<-ceiling(runif(1,1,c-7))
    m<-n%%13
      tx3<-m+tx2
} else (break)
#if ((tp3 | tx3)>21){
 # break
#}

```

```
cat("The playes first hand has a value of", tp1);
cat("The dealers first hand has a value of", tx1);
cat("if the player hits, the hand has a value of", tp2);
cat("if the dealer hits, the hand has a value of", tx2);
cat("if the player hits a second time, the hand has a value of", tp3);
cat("if the dealer hits a second time, the hand has a value of", tx3)
```

The R script file:

```
# R code for part (e).


# R code for part (f).
```

To display the result of running this function in the R console use the verbatim environment:

```
# Result part (e).


# Result part (f).
```

The figure obtained by saving the graph created in Task 2 as a Png file-type in the R console can be inserted using

Figure 2: My second plot

2.1 Discussion of Results Task 2

From the results printed in R for part (e), it can be concluded that....

From the results for part (f), since... it can be concluded that....

3 Task 3

The following displays the listing for the R commands used in Task 3.

The R script file:

```
# R code for part (a).


# R code for part (b).
```

To display the results:

```
# Result part (a).


# Result part (c).
```

The figure obtained by saving the graph created in Task 3 as a Png file-type in the R console can be inserted using

Figure 3: My third plot

3.1 Discussion of Results Task 3

From the results printed in R for part (c), it can be concluded that....

From the results for part (d), it can be concluded that....

The p-value for part (e) is.... and so ...