Preference of Different Games, Sports, and Health-Related Activities : An Analytical Study in R

1)What is the most popular indoor game among middle aged women(40-60 age)?

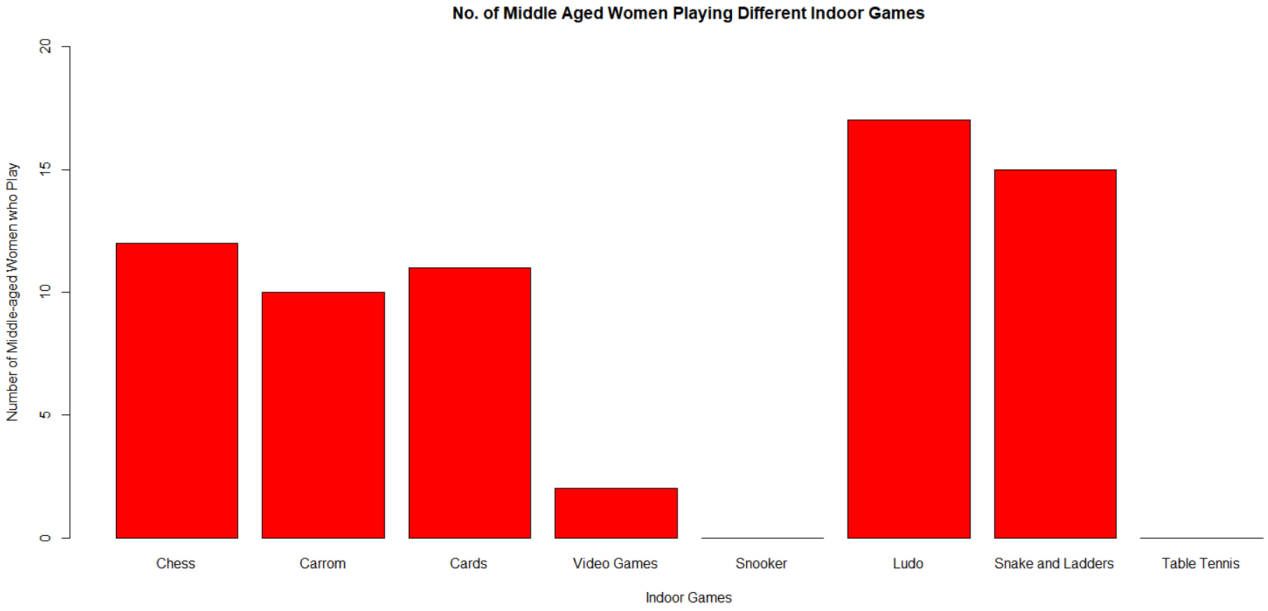
Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Chess <- Sports[(grepl("Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Chess,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 & Sports$Age<60 & Sports$Gender=="Female", ]

> Chess_Number<-nrow(Chess)

> Carrom <- Sports[(grepl("Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Carrom,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 & Sports$Age<60 & Sports$Gender=="Female", ]

> Carrom_Number<-nrow(Carrom)

> Cards <- Sports[(grepl("Cards", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Cards,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 & Sports$Age<60 & Sports$Gender=="Female", ]

> Cards_Number<-nrow(Cards)

> Video_Games <- Sports[(grepl("Video Games", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Video Games,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Video Games", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Video Games,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 & Sports$Age<60 & Sports$Gender=="Female", ]
```

```
> Video_Games_Number<-nrow(Video_Games)

> Snooker <- Sports[(grepl("Snooker", Sports$Indoor_Games, ignore.case =
TRUE) | grepl("Snooker,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(",
Snooker", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snooker,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 &
Sports$Age<60 & Sports$Gender=="Female", ]

> Snooker_Number<-nrow(Snooker)

> Ludo <- Sports[(grepl("Ludo", Sports$Indoor_Games, ignore.case = TRUE) |
grepl("Ludo,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 &
Sports$Age<60 & Sports$Gender=="Female", ]

> Ludo_Number<-nrow(Ludo)

> Snake_and_Ladders <- Sports[(grepl("Snake and Ladders",
Sports$Indoor_Games, ignore.case = TRUE) | grepl("Snake and Ladders,",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Age>40 &
Sports$Age<60 & Sports$Gender=="Female", ]

> Snake_and_Ladders_Number<-nrow(Snake_and_Ladders)

> Table_Tennis <- Sports[(grepl("Table Tennis", Sports$Indoor_Games,
ignore.case = TRUE) | grepl("Table Tennis,", Sports$Indoor_Games, ignore.case
= TRUE) | grepl(", Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) |
grepl(", Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE)) &
Sports$Age>40 & Sports$Age<60 & Sports$Gender=="Female", ]

> Table_Tennis_Number<-nrow(Table_Tennis)

>

> Indoor_Games<-c("Chess","Carrom","Cards","Video
Games","Snooker","Ludo","Snake and Ladders","Table Tennis")

> People_Playing<-
c(Chess_Number,Carrom_Number,Cards_Number,Video_Games_Number,Snoo
ker_Number,Ludo_Number,Snake_and_Ladders_Number,Table_Tennis_Numbe
r)
```

barplot(names.arg=Indoor_Games,People_Playing,main="No. of Middle Aged Women Playing Different Indoor Games",xlab="Indoor Games",ylab="Number of Middle-aged Women who Play",col="Red",ylim=c(0,20))

Output-



Answer-Ludo

2) What is the most preferred outdoor sport that people enjoy playing the most?

Code-

> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Cricket <- Sports[grepl("Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Cricket,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket,", Sports$Outdoor_Games, ignore.case = TRUE),]

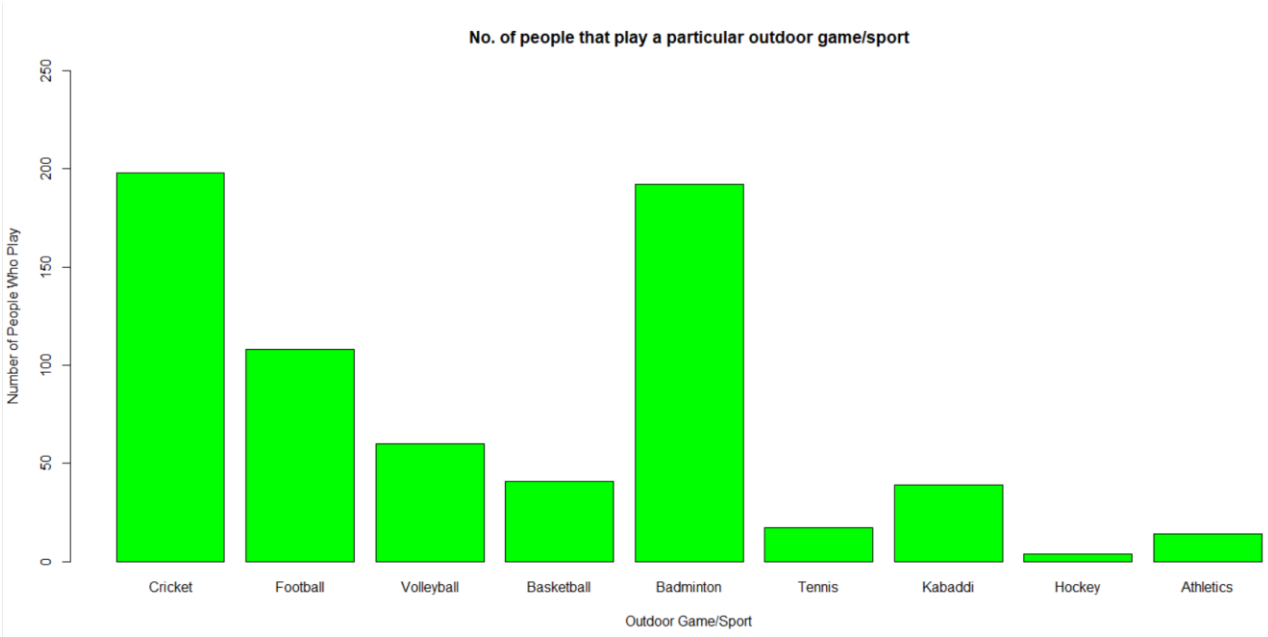
> Cricket_Number<-nrow(Cricket)

> Football <- Sports[grepl("Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Football,", Sports$Outdoor_Games, ignore.case = TRUE) |

```
grepl(", Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Football_Number<-nrow(Football)

> Volleyball <- Sports[grepl("Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Volleyball_Number<-nrow(Volleyball)

> Basketball <- Sports[grepl("Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Basketball,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Basketball,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Basketball_Number<-nrow(Basketball)

> Badminton <- Sports[grepl("Badminton", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Badminton,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Badminton", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Badminton,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Badminton_Number<-nrow(Badminton)

> Tennis <- Sports[grepl("Tennis", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Tennis,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Tennis", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Tennis,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Tennis_Number<-nrow(Tennis)

> Kabaddi <- Sports[grepl("Kabaddi", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Kabaddi", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Kabaddi_Number<-nrow(Kabaddi)

> Hockey <- Sports[grepl("Hockey", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Hockey,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Hockey", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Hockey,", Sports$Outdoor_Games, ignore.case = TRUE), ]
```

```
> Hockey_Number<-nrow(Hockey)

> Athletics <- Sports[grepl("Athletics", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Athletics,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Athletics", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Athletics,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Athletics_Number<-nrow(Athletics)

> Outdoor_Game<-c("Cricket","Football","Volleyball","Basketball","Badminton","Tennis","Kabaddi","Hockey","Athletics")

> People_Playing<-c(Cricket_Number,Football_Number,Volleyball_Number,Basketball_Number,Badminton_Number,Tennis_Number,Kabaddi_Number,Hockey_Number,Athletics_Number)

> barplot(names.arg=Outdoor_Game,People_Playing,main="No. of people that play a particular outdoor game/sport",xlab="Outdoor Game/Sport",ylab="Number of People Who Play",col="Green",ylim=c(0,250))
```

Output-



Answer-Cricket

3) How many people are in the habit of doing yoga or exercise daily?

Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Daily<-Sports[Sports$Time_on_Gym_and_Yoga=="Daily",]

> Daily_Number<-nrow(Daily)

> Daily_Number

[1] 104

> Weekends<-Sports[Sports$Time_on_Gym_and_Yoga=="On weekends",]

> Weekends_Number<-nrow(Weekends)

> Weekends_Number

[1] 68

> Rarely<-Sports[Sports$Time_on_Gym_and_Yoga=="Rarely",]

> Rarely_Number<-nrow(Rarely)

> Rarely_Number

[1] 121

> Never<-Sports[Sports$Time_on_Gym_and_Yoga=="Never",]

> Never_Number<-nrow(Never)

> Never_Number

[1] 32

> x<-c(104,68,121,32)

> labels<-c("Daily","On weekends","Rarely","Never")

> pie(x,labels,main="Exercise/Yoga habits of people",col=rainbow(length(x)))
```

Output-

Answer- 104

4) What is the most watched sports among teenagers and young adults(age 12-25)?

Code-

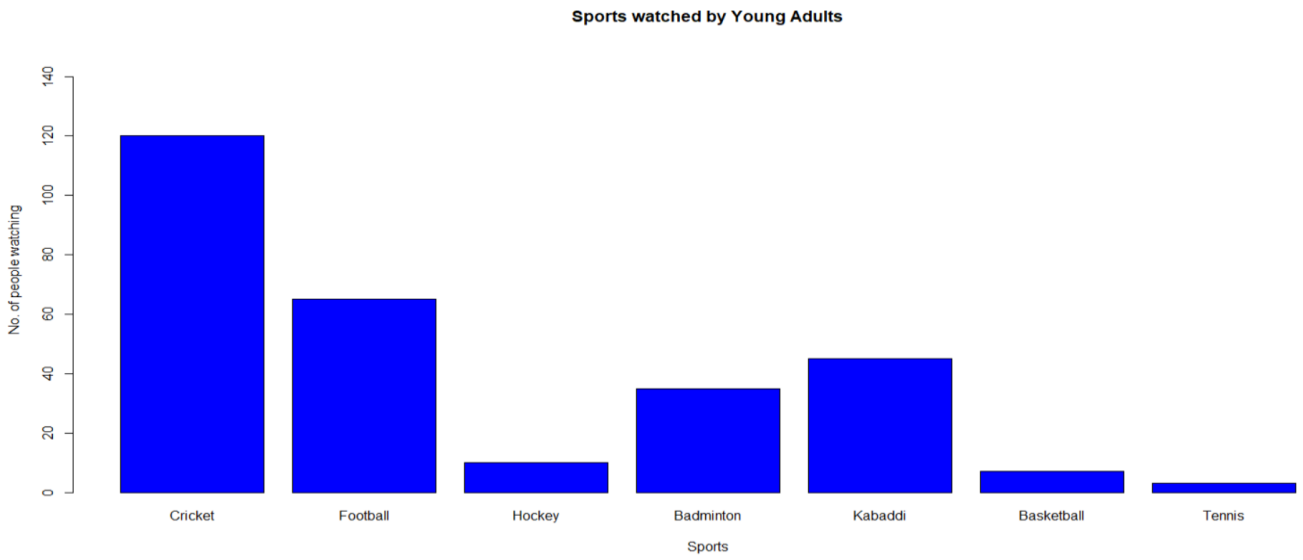
Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Cricket <- Sports[(grepl("Cricket", Sports$Sports_Watched, ignore.case = TRUE) | grepl("Cricket,", Sports$Sports_Watched, ignore.case = TRUE) | grepl(", Cricket", Sports$Sports_Watched, ignore.case = TRUE) | grepl(",

```
Cricket,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 &
Sports$Age<25, ]

> Cricket_Number<-nrow(Cricket)

> Football <- Sports[(grepl("Football", Sports$Sports_Watched, ignore.case =
TRUE) | grepl("Football,", Sports$Sports_Watched, ignore.case = TRUE) |
grepl(", Football", Sports$Sports_Watched, ignore.case = TRUE) | grepl(",
Football,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 &
Sports$Age<25, ]

> Football_Number<-nrow(Football)

> Hockey <- Sports[(grepl("Hockey", Sports$Sports_Watched, ignore.case =
TRUE) | grepl("Hockey,", Sports$Sports_Watched, ignore.case = TRUE) |
grepl(", Hockey", Sports$Sports_Watched, ignore.case = TRUE) | grepl(",
Hockey,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 &
Sports$Age<25, ]

> Hockey_Number<-nrow(Hockey)

> Badminton <- Sports[(grepl("Badminton", Sports$Sports_Watched,
ignore.case = TRUE) | grepl("Badminton,", Sports$Sports_Watched, ignore.case
= TRUE) | grepl(", Badminton", Sports$Sports_Watched, ignore.case = TRUE) |
grepl(", Badminton,", Sports$Sports_Watched, ignore.case = TRUE))&
Sports$Age>12 & Sports$Age<25, ]

> Badminton_Number<-nrow(Badminton)

> Kabaddi <- Sports[(grepl("Kabaddi", Sports$Sports_Watched, ignore.case =
TRUE) | grepl("Kabaddi,", Sports$Sports_Watched, ignore.case = TRUE) |
grepl(", Kabaddi", Sports$Sports_Watched, ignore.case = TRUE) | grepl(",
Kabaddi,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 &
Sports$Age<25, ]

> Kabaddi_Number<-nrow(Kabaddi)

> Basketball <- Sports[(grepl("Basketball", Sports$Sports_Watched, ignore.case
= TRUE) | grepl("Basketball,", Sports$Sports_Watched, ignore.case = TRUE) |
grepl(", Basketball", Sports$Sports_Watched, ignore.case = TRUE) | grepl(",
Basketball,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 &
Sports$Age<25, ]

> Basketball_Number<-nrow(Basketball)
```

```
> Tennis <- Sports[(grepl("Tennis", Sports$Sports_Watched, ignore.case = TRUE) | grepl("Tennis,", Sports$Sports_Watched, ignore.case = TRUE) | grepl(", Tennis", Sports$Sports_Watched, ignore.case = TRUE) | grepl(", Tennis,", Sports$Sports_Watched, ignore.case = TRUE))& Sports$Age>12 & Sports$Age<25, ]

> Tennis_Number<-nrow(Tennis)

> Sports<-
c("Cricket","Football","Hockey","Badminton","Kabaddi","Basketball","Tennis")

> People_Watching<-
c(Cricket_Number,Football_Number,Hockey_Number,Badminton_Number,Kabaddi_Number,Basketball_Number,Tennis_Number)

> barplot(names.arg=Sports,People_Watching,main="Sports watched by Young Adults",xlab="Sports",ylab="No. of people watching",col="Blue",ylim=c(0,150))
```

Output-



Answer-Cricket

5) What outdoor games do women who regularly exercise prefer to play?

Code-

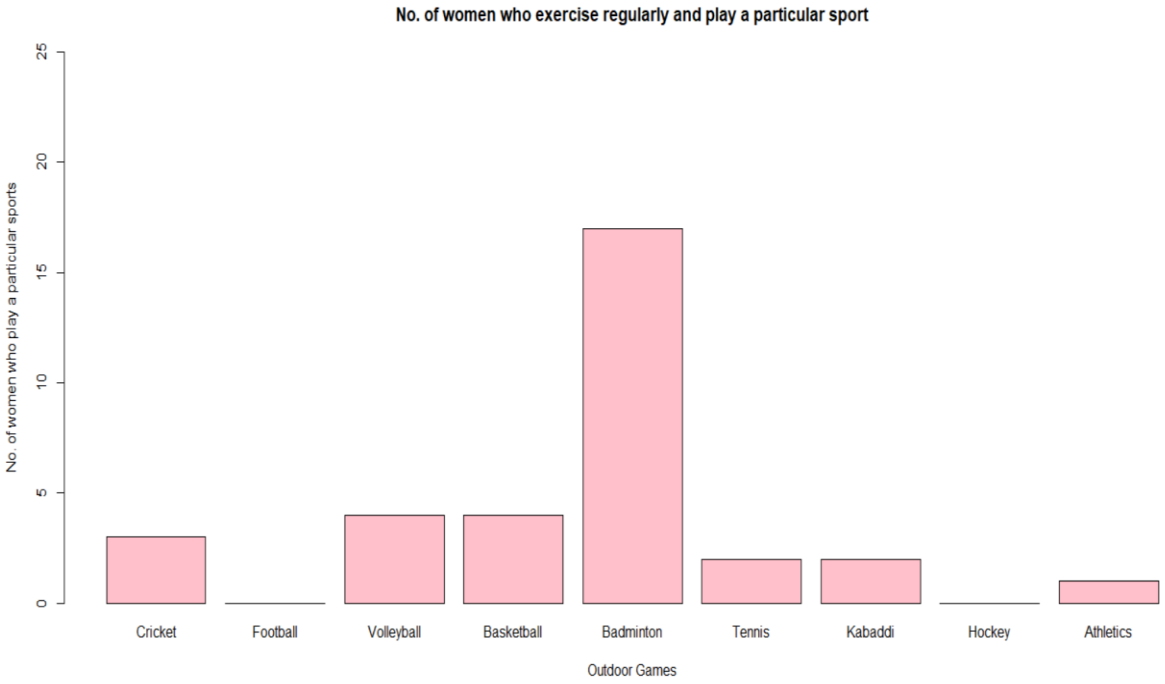
```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Cricket <- Sports[(grepl("Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Cricket,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket,", Sports$Outdoor_Games, ignore.case = TRUE)) & Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Cricket_Number<-nrow(Cricket)

> Football <- Sports[(grepl("Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Football,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football,", Sports$Outdoor_Games, ignore.case = TRUE)) & Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily" , ]

> Football_Number<-nrow(Football)

> Volleyball <- Sports[(grepl("Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE)) & Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Volleyball_Number<-nrow(Volleyball)

> Basketball <- Sports[(grepl("Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Basketball,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Basketball,", Sports$Outdoor_Games, ignore.case = TRUE)) & Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Basketball_Number<-nrow(Basketball)

> Badminton <- Sports[(grepl("Badminton", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Badminton,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Badminton", Sports$Outdoor_Games, ignore.case = TRUE) |
```

```
grepl(", Badminton,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Badminton_Number<-nrow(Badminton)

> Tennis <- Sports[(grepl("Tennis", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Tennis,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Tennis", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Tennis,",
Sports$Outdoor_Games, ignore.case = TRUE)) & Sports$Gender=="Female" &
Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Tennis_Number<-nrow(Tennis)

> Kabaddi <- Sports[(grepl("Kabaddi", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Kabaddi", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Kabaddi_Number<-nrow(Kabaddi)

> Hockey <- Sports[(grepl("Hockey", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Hockey,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Hockey", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Hockey,", Sports$Outdoor_Games, ignore.case = TRUE))&
Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Hockey_Number<-nrow(Hockey)

> Athletics <- Sports[(grepl("Athletics", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Athletics,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Athletics", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Athletics,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Gender=="Female" & Sports$Time_on_Gym_and_Yoga=="Daily", ]

> Athletics_Number<-nrow(Athletics)

> Outdoor_Game<-
c("Cricket","Football","Volleyball","Basketball","Badminton","Tennis","Kabaddi
","Hockey","Athletics")

> Women_Playing<-
c(Cricket_Number,Football_Number,Volleyball_Number,Basketball_Number,Ba
```

dminton_Number,Tennis_Number,Kabaddi_Number,Hockey_Number,Athletics_Number)

barplot(names.arg=Outdoor_Game,Women_Playing,main="No. of women who exercise regularly and play a particular sport",xlab="Outdoor Games",ylab="No. of women who play a particular sports",col="Pink",ylim=c(0,25))

Output-



Answer- Badminton

6) How often do people who play only indoor games engage in physical exercises?

Code-

> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

```
> Daily<-Sports[Sports$Time_on_Gym_and_Yoga=="Daily" &
Sports$Type_of_Games=="Indoor",]

> Daily_Number<-nrow(Daily)

> Daily_Number

[1] 13

> Weekends<-Sports[Sports$Time_on_Gym_and_Yoga=="On weekends" &
Sports$Type_of_Games=="Indoor",]

> Weekends_Number<-nrow(Weekends)

> Weekends_Number

[1] 13

> Rarely<-Sports[Sports$Time_on_Gym_and_Yoga=="Rarely" &
Sports$Type_of_Games=="Indoor",]

> Rarely_Number<-nrow(Rarely)

> Rarely_Number

[1] 27

> Never<-Sports[Sports$Time_on_Gym_and_Yoga=="Never" &
Sports$Type_of_Games=="Indoor",]

> Never_Number<-nrow(Never)

> Never_Number

[1] 10

> x<-c(13,13,27,10)

>labels<-c("Daily","On Weekends","Rarely","Never")

> pie(x,labels,main="Exercising habits of people who play Indoor
Games",col=rainbow(length(x)))
```

Output-

7) What is the favourite indoor game among men?

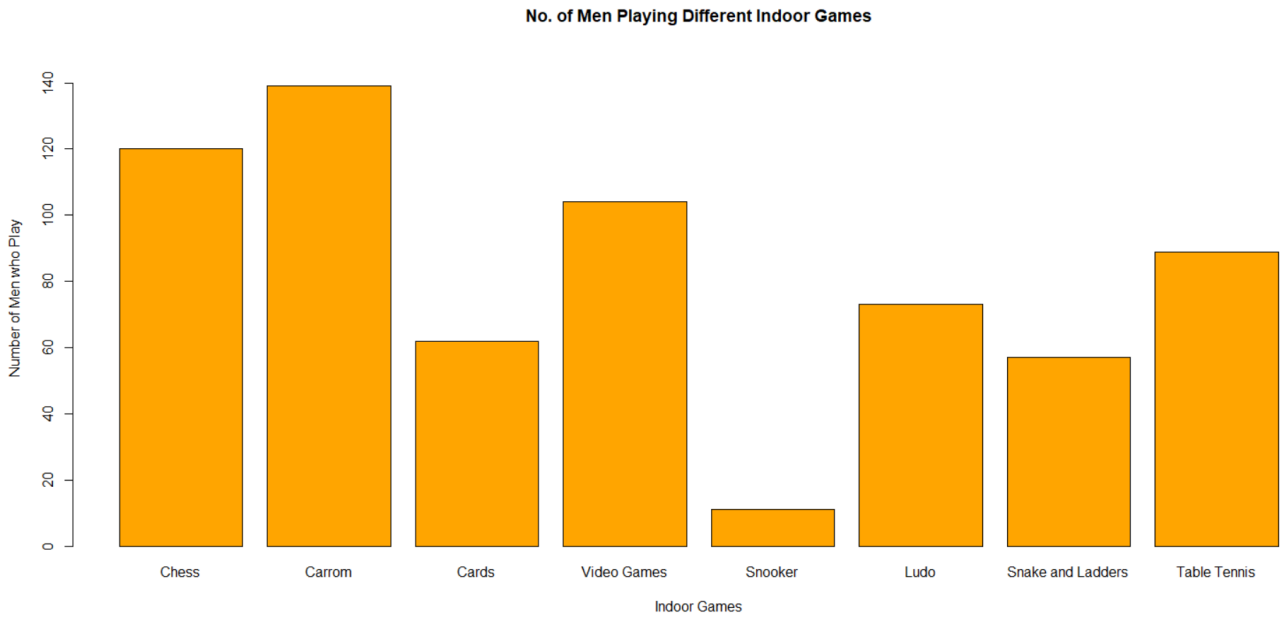
Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Chess <- Sports[(grepl("Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Chess,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Chess_Number<-nrow(Chess)

> Carrom <- Sports[(grepl("Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Carrom,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom,", Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Carrom_Number<-nrow(Carrom)

> Cards <- Sports[(grepl("Cards", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Cards,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards",
```

```
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Cards_Number<-nrow(Cards)

> Video_Games <- Sports[(grepl("Video Games", Sports$Indoor_Games,
ignore.case = TRUE) | grepl("Video Games,", Sports$Indoor_Games,
ignore.case = TRUE) | grepl(", Video Games", Sports$Indoor_Games,
ignore.case = TRUE) | grepl(", Video Games,", Sports$Indoor_Games,
ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Video_Games_Number<-nrow(Video_Games)

> Snooker <- Sports[(grepl("Snooker", Sports$Indoor_Games, ignore.case =
TRUE) | grepl("Snooker,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(",
Snooker", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snooker,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Snooker_Number<-nrow(Snooker)

> Ludo <- Sports[(grepl("Ludo", Sports$Indoor_Games, ignore.case = TRUE) |
grepl("Ludo,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Ludo_Number<-nrow(Ludo)

> Snake_and_Ladders <- Sports[(grepl("Snake and Ladders",
Sports$Indoor_Games, ignore.case = TRUE) | grepl("Snake and Ladders,",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders",
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders,",
Sports$Indoor_Games, ignore.case = TRUE)) & Sports$Gender=="Male", ]

> Snake_and_Ladders_Number<-nrow(Snake_and_Ladders)

> Table_Tennis <- Sports[(grepl("Table Tennis", Sports$Indoor_Games,
ignore.case = TRUE) | grepl("Table Tennis,", Sports$Indoor_Games, ignore.case
= TRUE) | grepl(", Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) |
grepl(", Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE)) &
Sports$Gender=="Male", ]

> Table_Tennis_Number<-nrow(Table_Tennis)
```

```
> Indoor_Games<-c("Chess","Carrom","Cards","Video
Games","Snooker","Ludo","Snake and Ladders","Table Tennis")

> Men_Playing<-
c(Chess_Number,Carrom_Number,Cards_Number,Video_Games_Number,Snoo
ker_Number,Ludo_Number,Snake_and_Ladders_Number,Table_Tennis_Numbe
r)

> barplot(names.arg=Indoor_Games,Men_Playing,main="No. of Men Playing
Different Indoor Games",xlab="Indoor Games",ylab="Number of Men who
Play",col="Orange",ylim=c(0,150))
```

Output-



Answer- Carrom

8) Which outdoor game/sport is most popular among people who never exercise?

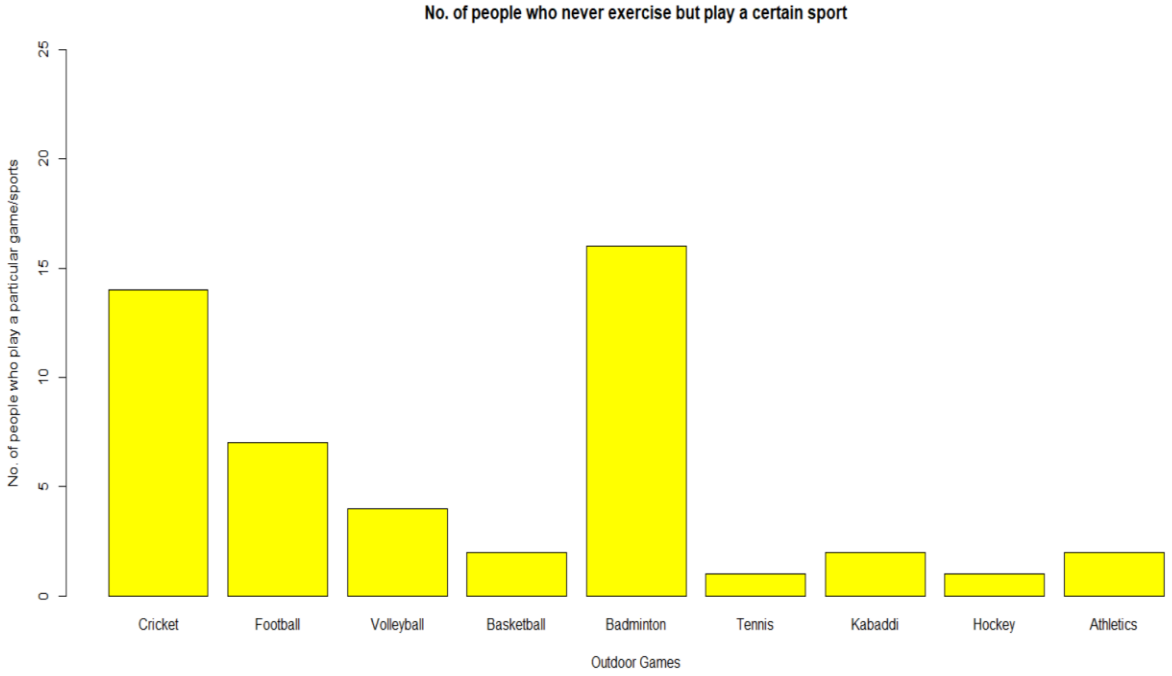
Code-

```
> Sports<-read.csv("C:/Users/Soumajit
Pal/Downloads/Preference_of_Different_Sports.csv")
```

```
> Cricket <- Sports[(grepl("Cricket", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Cricket,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Cricket,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Cricket_Number<-nrow(Cricket)

> Football <- Sports[(grepl("Football", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Football,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Football,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never" , ]

> Football_Number<-nrow(Football)

> Volleyball <- Sports[(grepl("Volleyball", Sports$Outdoor_Games, ignore.case
= TRUE) | grepl("Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Volleyball_Number<-nrow(Volleyball)

> Basketball <- Sports[(grepl("Basketball", Sports$Outdoor_Games, ignore.case
= TRUE) | grepl("Basketball,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Basketball,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Basketball_Number<-nrow(Basketball)

> Badminton <- Sports[(grepl("Badminton", Sports$Outdoor_Games,
ignore.case = TRUE) | grepl("Badminton,", Sports$Outdoor_Games, ignore.case
= TRUE) | grepl(", Badminton", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Badminton,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Badminton_Number<-nrow(Badminton)

> Tennis <- Sports[(grepl("Tennis", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Tennis,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Tennis", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Tennis,",
```

```
Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Tennis_Number<-nrow(Tennis)

> Kabaddi <- Sports[(grepl("Kabaddi", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Kabaddi", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Kabaddi_Number<-nrow(Kabaddi)

> Hockey <- Sports[(grepl("Hockey", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Hockey,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Hockey", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Hockey,", Sports$Outdoor_Games, ignore.case = TRUE))&
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Hockey_Number<-nrow(Hockey)

> Athletics <- Sports[(grepl("Athletics", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Athletics,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Athletics", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Athletics,", Sports$Outdoor_Games, ignore.case = TRUE)) &
Sports$Time_on_Gym_and_Yoga=="Never", ]

> Athletics_Number<-nrow(Athletics)

> Outdoor_Game<-
c("Cricket","Football","Volleyball","Basketball","Badminton","Tennis","Kabaddi
","Hockey","Athletics")

> People_Playing<-
c(Cricket_Number,Football_Number,Volleyball_Number,Basketball_Number,Ba
dminton_Number,Tennis_Number,Kabaddi_Number,Hockey_Number,Athletics_
Number)

> barplot(names.arg=Outdoor_Game,People_Playing,main="No. of people who
never exercise but play a certain sport",xlab="Outdoor Games",ylab="No. of
people who play a particular game/sports",col="Yellow",ylim=c(0,25))
```

Output-



Answer-Badminton

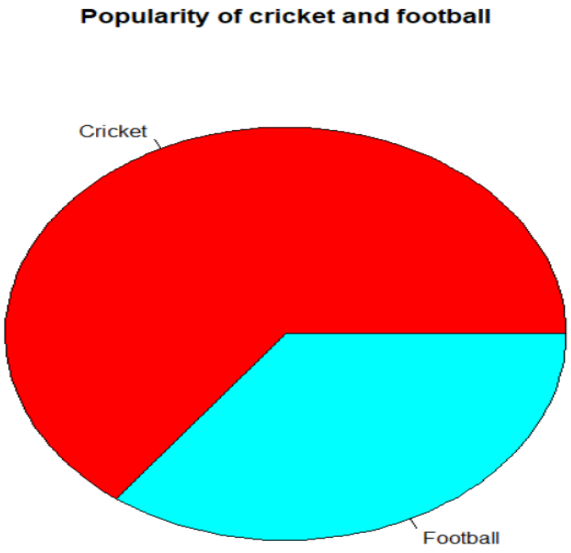
9) Which sport is played more, cricket or football, by the people who took part in the survey?

Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Cricket <- Sports[grepl("Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Cricket,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket,", Sports$Outdoor_Games, ignore.case = TRUE),]

> Cricket_Number<-nrow(Cricket)

> Cricket_Number

[1] 198
```

```
> Football <- Sports[grepl("Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Football,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football,", Sports$Outdoor_Games, ignore.case = TRUE), ]

> Football_Number<-nrow(Football)

> Football_Number

[1] 108

> x<-c(198,108)

> label<-c("Cricket","Football")

> pie(x,label,main="Popularity of cricket and football",col=rainbow(length(x)))
```

Output-



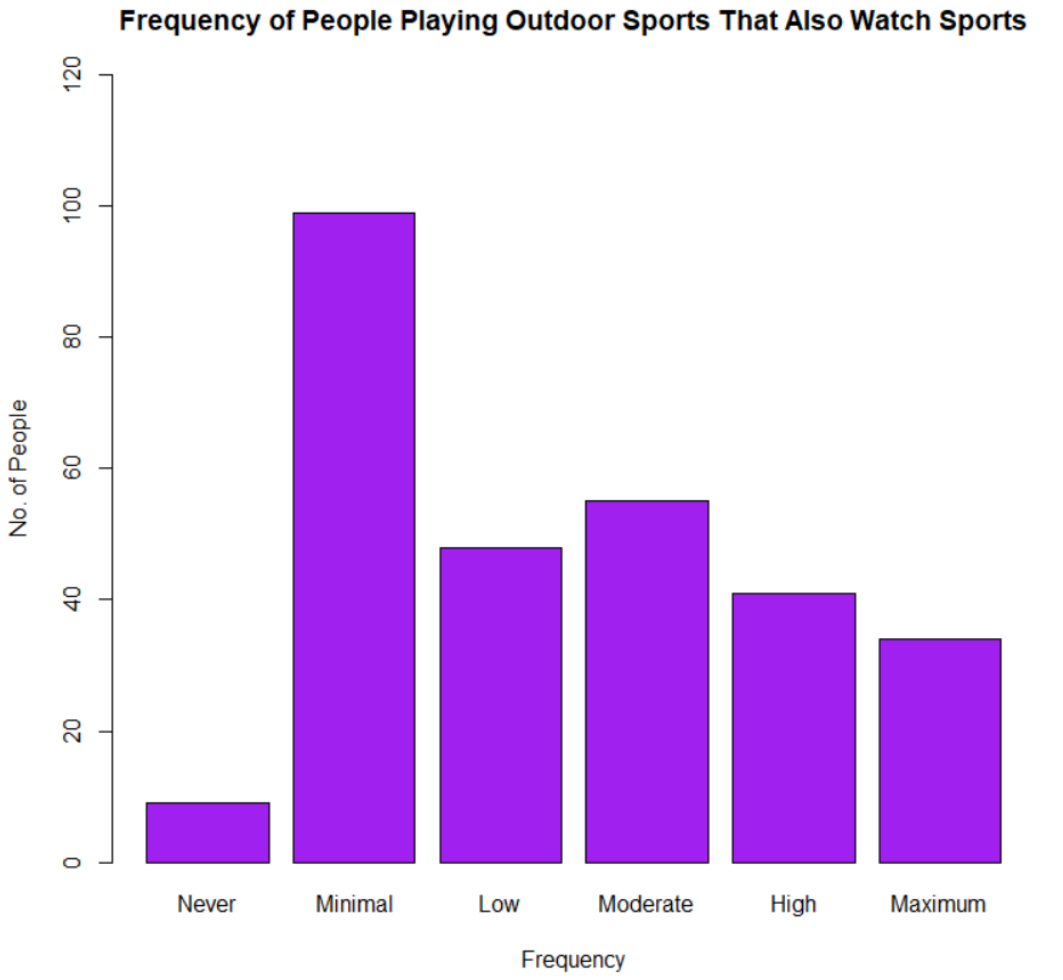
Answer- Cricket is played more as compared to football

10) How often do people who watch sports engage in playing outdoor sports?

Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Never<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==0 & Sports$Outdoor_Games!="None of the above",]

> Never_Number<-nrow(Never)

> Minimal<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==1 & Sports$Outdoor_Games!="None of the above",]

> Minimal_Number<-nrow(Minimal)

> Low<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==2 & Sports$Outdoor_Games!="None of the above",]

> Low_Number<-nrow(Low)

> Moderate<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==3 & Sports$Outdoor_Games!="None of the above",]

> Moderate_Number<-nrow(Moderate)

> High<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==4 & Sports$Outdoor_Games!="None of the above",]

> High_Number<-nrow(High)

> Maximum<-Sports[Sports$Level_of_Time_on_Outdoor_Sports==5 & Sports$Outdoor_Games!="None of the above",]

> Maximum_Number<-nrow(Maximum)

> Frequency<-c("Never","Minimal","Low","Moderate","High","Maximum")

> People<-c(Never_Number,Minimal_Number,Low_Number,Moderate_Number,High_Number,Maximum_Number)

> barplot(names.arg=Frequency,People,main="Frequency of People Playing Outdoor Sports That Also Watch Sports",xlab="Frequency",ylab="No. of People",col="Purple",ylim=c(0,120))
```

Output-



11) Which sportsperson is most popular among people who took this survey?

Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Kohli<-Sports[grepl("Kohli", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl("Kohli,", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl(", Kohli", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl(", Kohli,", Sports$Favourite_Sportsperson, ignore.case = TRUE), ]
```

```
> Kohli_Number<-nrow(Kohli)

> Messi<-Sports[grepl("Messi", Sports$Favourite_Sportsperson, ignore.case =
TRUE) | grepl("Messi,", Sports$Favourite_Sportsperson, ignore.case = TRUE) |
grepl(", Messi", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl(",
Messi,", Sports$Favourite_Sportsperson, ignore.case = TRUE), ]

> Messi_Number<-nrow(Messi)

> Ganguly<-Sports[grepl("Ganguly", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl("Ganguly,", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", Ganguly", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", Ganguly,", Sports$Favourite_Sportsperson,
ignore.case = TRUE), ]

> Ganguly_Number<-nrow(Ganguly)

> Sindhu<-Sports[grepl("P V Sindhu", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl("P V Sindhu,", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", P V Sindhu", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", P V Sindhu,", Sports$Favourite_Sportsperson,
ignore.case = TRUE), ]

> Sindhu_Number<-nrow(Sindhu)

> Sachin<-Sports[grepl("Sachin", Sports$Favourite_Sportsperson, ignore.case =
TRUE) | grepl("Sachin,", Sports$Favourite_Sportsperson, ignore.case = TRUE) |
grepl(", Sachin", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl(",
Sachin,", Sports$Favourite_Sportsperson, ignore.case = TRUE), ]

> Sachin_Number<-nrow(Sachin)

> Dhoni<-Sports[grepl("Dhoni", Sports$Favourite_Sportsperson, ignore.case =
TRUE) | grepl("Dhoni,", Sports$Favourite_Sportsperson, ignore.case = TRUE) |
grepl(", Dhoni", Sports$Favourite_Sportsperson, ignore.case = TRUE) | grepl(",
Dhoni,", Sports$Favourite_Sportsperson, ignore.case = TRUE), ]

> Dhoni_Number<-nrow(Dhoni)

> Ronaldo<-Sports[grepl("Ronaldo", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl("Ronaldo,", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", Ronaldo", Sports$Favourite_Sportsperson,
ignore.case = TRUE) | grepl(", Ronaldo,", Sports$Favourite_Sportsperson,
ignore.case = TRUE), ]
```

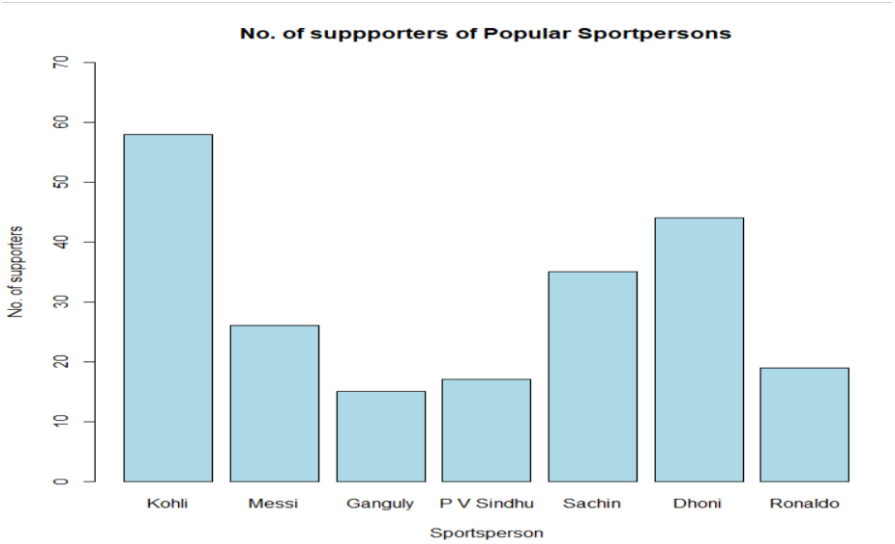
> Ronaldo_Number<-nrow(Ronaldo)

> Sportsperson<-c("Kohli","Messi","Ganguly","P V Sindhu","Sachin","Dhoni","Ronaldo")

> Supporters<-c(Kohli_Number,Messi_Number,Ganguly_Number,Sindhu_Number,Sachin_Number,Dhoni_Number,Ronaldo_Number)

> barplot(names.arg=Sportsperson,Supporters,main="No. of suppporters of Popular Sportpersons",xlab="Sportsperson",ylab="No. of supporters",col="Light Blue",ylim=c(0,70))

Output-



Answer- Kohli

12) How many people play more than 2 different outdoor games/sports?

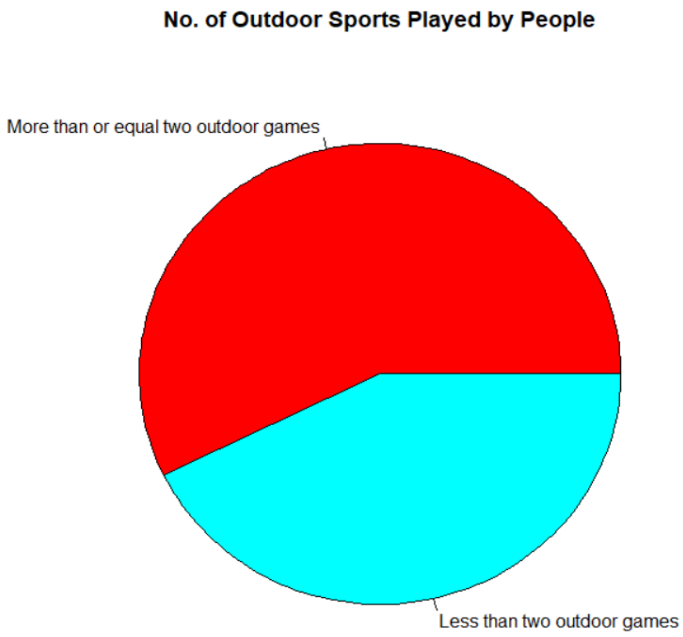
Code-

> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Greater_and_Equal<-Sports[Sports$Outdoor_Games!="None of the above" & Sports$Outdoor_Games!="Cricket" & Sports$Outdoor_Games!="Football" &

```
Sports$Outdoor_Games!="Volleyball" & Sports$Outdoor_Games!="Basketball"
& Sports$Outdoor_Games!="Badminton" & Sports$Outdoor_Games!="Tennis"
& Sports$Outdoor_Games!="Kabaddi" & Sports$Outdoor_Games!="Hockey" &
Sports$Outdoor_Games!="Athletics", ]

> Greater_and_Equal_Number<-nrow(Greater_and_Equal)

> Greater_and_Equal_Number

[1] 187

> Lesser<-Sports[Sports$Outdoor_Games=="None of the above" |
Sports$Outdoor_Games=="Cricket" | Sports$Outdoor_Games=="Football" |
Sports$Outdoor_Games=="Volleyball" | Sports$Outdoor_Games=="Basketball"
| Sports$Outdoor_Games=="Badminton" | Sports$Outdoor_Games=="Tennis"
| Sports$Outdoor_Games=="Kabaddi" | Sports$Outdoor_Games=="Hockey" |
Sports$Outdoor_Games=="Athletics", ]

> Lesser_Number<-nrow(Lesser)

> Lesser_Number

[1] 140

> x<-c(187,140)

> label<-c("More than or equal two outdoor games","Less than two outdoor
games")

> pie(x,label,main="No. of Outdoor Sports Played by
People",col=rainbow(length(x)))
```

Output-



Answer-187

13) What is the most popular indoor game among all people who took the survey?

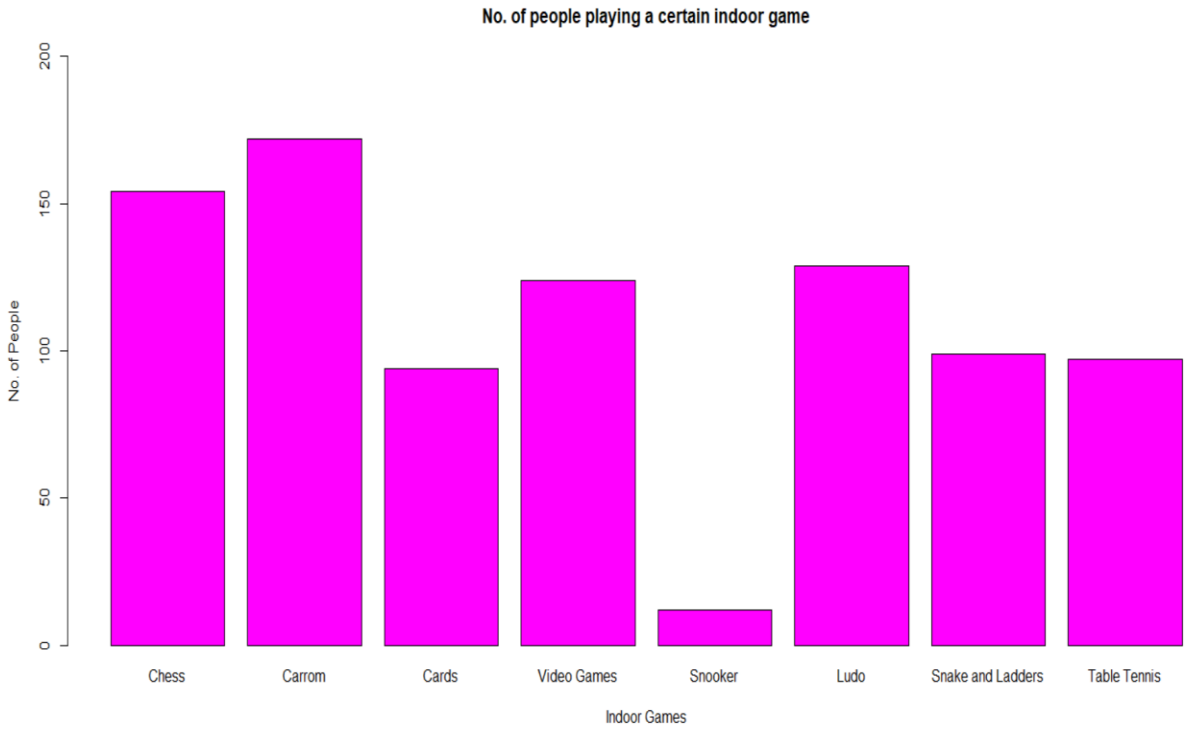
Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Chess <- Sports[grepl("Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Chess,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Chess_Number<-nrow(Chess)

> Carrom <- Sports[grepl("Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Carrom,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom,", Sports$Indoor_Games, ignore.case = TRUE), ]
```

```
> Carrom_Number<-nrow(Carrom)

> Cards <- Sports[grepl("Cards", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Cards,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Cards,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Cards_Number<-nrow(Cards)

> Video_Games <- Sports[grepl("Video Games", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Video Games,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Video Games", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Video Games,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Video_Games_Number<-nrow(Video_Games)

> Snooker <- Sports[grepl("Snooker", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Snooker,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snooker", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snooker,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Snooker_Number<-nrow(Snooker)

> Ludo <- Sports[grepl("Ludo", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Ludo,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Ludo,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Ludo_Number<-nrow(Ludo)

> Snake_and_Ladders <- Sports[grepl("Snake and Ladders", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Snake and Ladders,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Snake and Ladders,", Sports$Indoor_Games, ignore.case = TRUE), ]

> Snake_and_Ladders_Number<-nrow(Snake_and_Ladders)

> Table_Tennis <- Sports[grepl("Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE), ]
```

```
> Table_Tennis_Number<-nrow(Table_Tennis)

> Indoor_Games<-c("Chess","Carrom","Cards","Video
Games","Snooker","Ludo","Snake and Ladders","Table Tennis")

> People_Playing<-
c(Chess_Number,Carrom_Number,Cards_Number,Video_Games_Number,Snoo
ker_Number,Ludo_Number,Snake_and_Ladders_Number,Table_Tennis_Numbe
r)

> barplot(names.arg=Indoor_Games,People_Playing,main="No. of people
playing a certain indoor game",xlab="Indoor Games",ylab="No. of
People",col="Magenta",ylim=c(0,200))
```

Output-



Answer- Carrom

14) How many people play their favourite sports in real life?

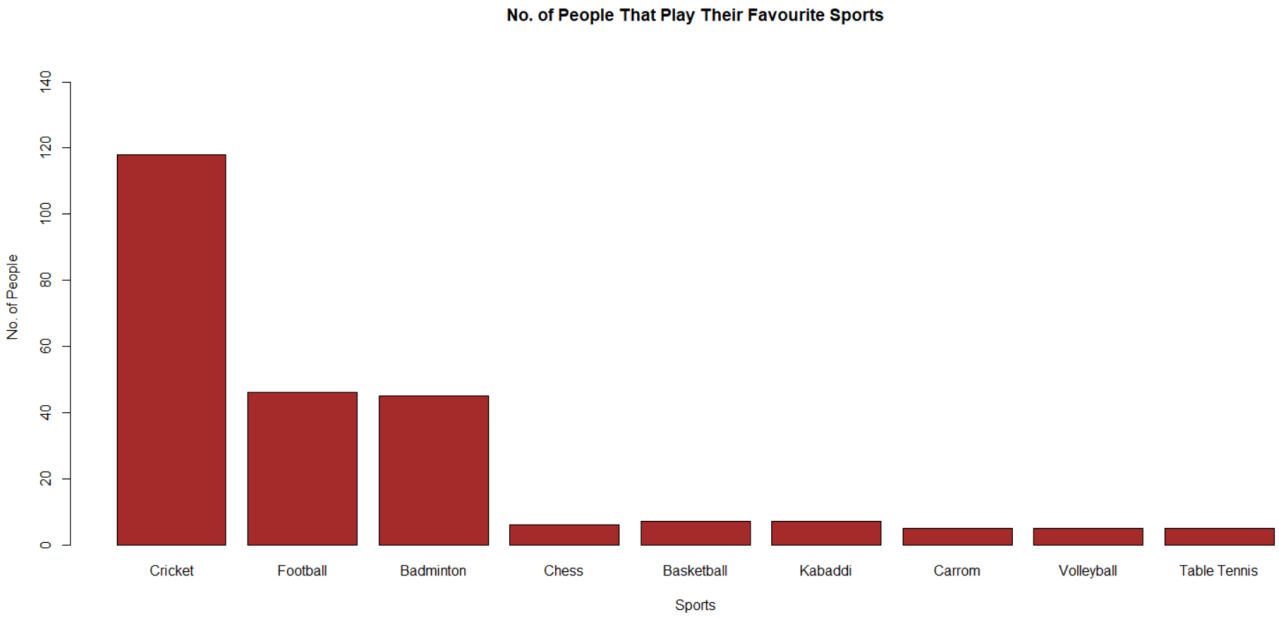
Code-

```
> Sports<-read.csv("C:/Users/Soumajit Pal/Downloads/Preference_of_Different_Sports.csv")

> Cricket <- Sports[(grepl("Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Cricket,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Cricket,", Sports$Outdoor_Games, ignore.case = TRUE)) & (grepl("Cricket", Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Cricket,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Cricket", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Cricket,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Cricket_Number<-nrow(Cricket)

> Football <- Sports[(grepl("Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Football,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Football,", Sports$Outdoor_Games, ignore.case = TRUE)) & (grepl("Football", Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Football,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Football", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Football,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Football_Number<-nrow(Football)

> Badminton <- Sports[(grepl("Badminton", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Badminton,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Badminton", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Badminton,", Sports$Outdoor_Games, ignore.case = TRUE)) & (grepl("Badminton", Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Badminton,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Badminton", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Badminton,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Badminton_Number<-nrow(Badminton)

> Chess <- Sports[(grepl("Chess", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Chess,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess",
```

```
Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Chess,",
Sports$Indoor_Games, ignore.case = TRUE)) & (grepl("Chess",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Chess,",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Chess",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Chess,",
Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Chess_Number<-nrow(Chess)

> Basketball <- Sports[(grepl("Basketball", Sports$Outdoor_Games, ignore.case
= TRUE) | grepl("Basketball,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Basketball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Basketball,", Sports$Outdoor_Games, ignore.case = TRUE)) &
(grepl("Basketball", Sports$Favourite_Sport, ignore.case = TRUE) |
grepl("Basketball,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(",
Basketball", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(",
Basketball,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Basketball_Number<-nrow(Basketball)

> Kabaddi <- Sports[(grepl("Kabaddi", Sports$Outdoor_Games, ignore.case =
TRUE) | grepl("Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE) |
grepl(", Kabaddi", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(",
Kabaddi,", Sports$Outdoor_Games, ignore.case = TRUE)) & (grepl("Kabaddi",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Kabaddi,",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Kabaddi",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Kabaddi,",
Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Kabaddi_Number<-nrow(Kabaddi)

> Carrom <- Sports[(grepl("Carrom", Sports$Indoor_Games, ignore.case =
TRUE) | grepl("Carrom,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(",
Carrom", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Carrom,",
Sports$Indoor_Games, ignore.case = TRUE)) & (grepl("Carrom",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Carrom,",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Carrom",
Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Carrom,",
Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Carrom_Number<-nrow(Carrom)
```

```
> Volleyball <- Sports[(grepl("Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl("Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball", Sports$Outdoor_Games, ignore.case = TRUE) | grepl(", Volleyball,", Sports$Outdoor_Games, ignore.case = TRUE)) & (grepl("Volleyball", Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Volleyball,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Volleyball", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Volleyball,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Volleyball_Number<-nrow(Volleyball)

> Table_Tennis <- Sports[(grepl("Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) | grepl("Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Table Tennis", Sports$Indoor_Games, ignore.case = TRUE) | grepl(", Table Tennis,", Sports$Indoor_Games, ignore.case = TRUE)) & (grepl("Table Tennis", Sports$Favourite_Sport, ignore.case = TRUE) | grepl("Table Tennis,", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Table Tennis", Sports$Favourite_Sport, ignore.case = TRUE) | grepl(", Table Tennis,", Sports$Favourite_Sport, ignore.case = TRUE)) , ]

> Table_Tennis_Number<-nrow(Table_Tennis)

> Games<-
c("Cricket","Football","Badminton","Chess","Basketball","Kabaddi","Carrom","
Volleyball","Table Tennis")

> People<-
c(Cricket_Number,Football_Number,Badminton_Number,Chess_Number,Baske
tball_Number,Kabaddi_Number,Carrom_Number,Volleyball_Number,Table_Ten
nis_Number)

> barplot(names.arg=Games,People,main="No. of People That Play Their
Favourite Sports",xlab="Sports",ylab="No. of
People",col="Brown",ylim=c(0,150))

> Total_People<-
Cricket_Number+Football_Number+Badminton_Number+Chess_Number+Bask
etball_Number+Kabaddi_Number+Carrom_Number+Volleyball_Number+Table
_Tennis_Number

> Total_People

[1] 244
```

Output-



Answer-244 people