**ASSIGNMENT 1**

**NAME -Rohit Rana**

**Roll Number= 102116012**

#q1

c<-c(5,10,15,20,25,30)

max(c)

min(c)

#q2

var = readline();

var= as.integer(var)

ff<-factorial(var)

ff

#q3

var1 = readline();

var1= as.integer(var1)

Fibo<-numeric(var1)

Fibo[1]<-0

Fibo[2]<-1

for(i in 3:var1)

Fibo[i]=Fibo[i-1]+Fibo[i-2]

print("The fibonacci numbers requested are:")

print(Fibo)

#q4

print("\*\*\*\*\*\_\_Calculator\_\_\*\*\*\*\*")

print("Enter the first number:")

inp1 = readline();

inp1 = as.integer(inp1)

print("Enter the second number:")

inp2 = readline();

inp2 = as.integer(inp2)

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

print("Input 1 for addition, 2 for subtraction, 3 for multiplication and 4 for division.")

meth = readline();

meth = as.integer(meth)

if(meth == 1){

print(inp1 + inp2)

} else if(meth == 2){

print(inp1-inp2)

} else if(meth == 3){

print(inp1 \* inp2)

} else if(meth == 4){

print(inp1/inp2)

} else{

print("Wrong Input")

}

#q5

plot(sin, 0, 4\*pi)

plot(1,3)

plot(c(1,2,3),c(3,2,1),main="Graph Name",xlab="x",ylab="y")

plot(1:10)

p1 <- c(1,2,3,4)

l1 <- c("1","2","3","4")

pie(p1,l1)

pie(p1,l1,main="Chart name")

pie(p1,l1,main="Chart name", col = rainbow(length(p1)))

legend("topright", c("1", "2", "3", "4"),

cex = 0.5, fill = rainbow(length(p1)))

p2<-c(1,2,5,4,3,6,8,9,7)

barplot(p2,xlab="x axis",ylab="y axis",main="Chart Name")

barplot(p2, horiz=TRUE)