

```
1 setwd("C:\\Users\\it24104154\\Desktop\\LAB_05")
2
3 deliveryTimes <- read.table("Exercise - Lab 05.txt", h
4
5 fix(deliveryTimes)
6
7 names(deliveryTimes)<-c("x1")
8
9 attach(deliveryTimes)
```

Data Editor

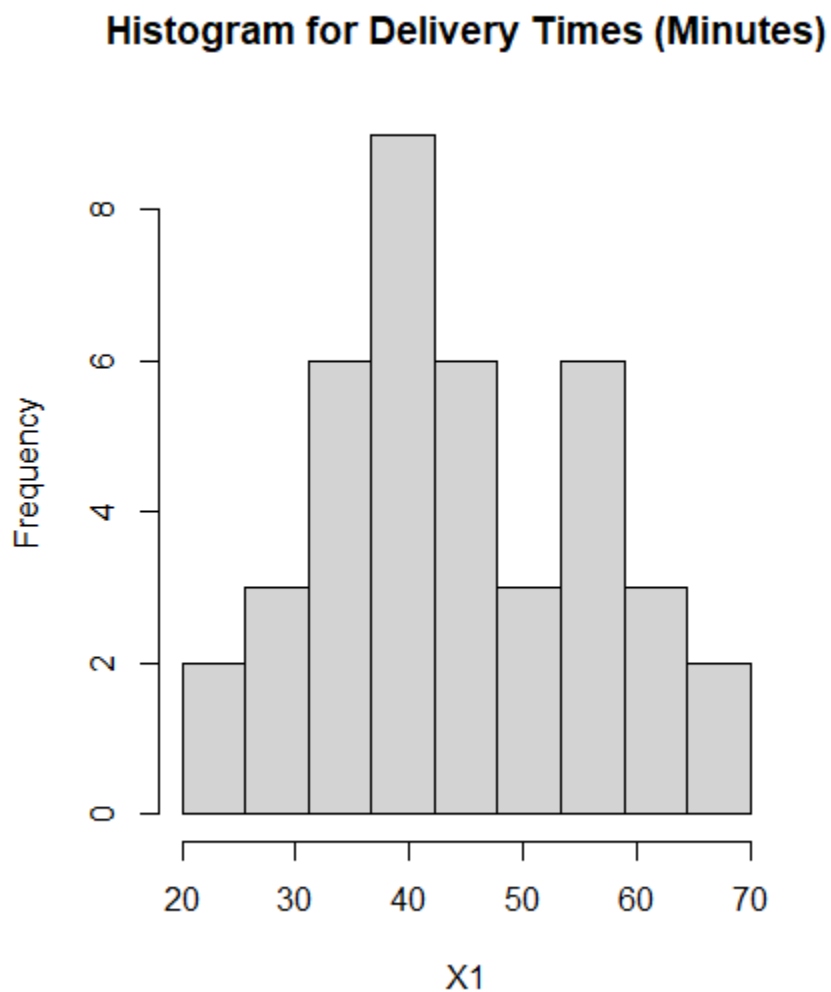
File Edit Help

	Delivery_Time_.minutes.	var2	var3
1	34		
2	54		
3	47		
4	29		
5	39		
6	61		
7	20		
8	40		
9	57		
10	36		
11	38		
12	44		
13	59		
14	38		
15	40		
16	40		
17	67		
18	66		
19	55		

```

11 histogram<-hist(X1,main="Histogram for Delivery Times (Minutes)",breaks = seq(20,70,length = 10),right = FALSE)
12
13 # The histogram shows that delivery times are approximately symmetric.
14 # Most delivery times fall between 35 and 45 minutes.
15 # The shape is bell-shaped, resembling a normal distribution.
16 # There are fewer observations at both the lower and upper ends.
17
18 breaks<-round(histogram$breaks)
19 freq <- histogram$counts
20
21 cum.freq <- cumsum(freq)
22 new<-c()
23 for(i in 1:length(breaks)){
24   if(i==1){
25     new[i]=0
26   }
27   else{
28     new[i]=cum.freq[i-1]
29   }
30 }
31

```



```

31
32 plot(breaks,new,type='l',main = 'Cumulative Frequency Polygon for Delivery Times',
33      xlab="Delivery Times",ylab="Cumulative Frequency",ylim=c(0,max(cum.freq)))
34
35 cbind(upper = breaks, cumFreq = new)
36

```

34:1 (Top Level) ↕

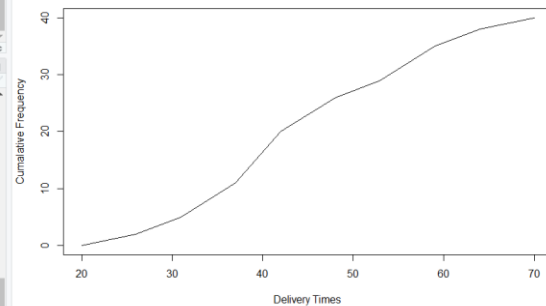
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```

• fix(DeliveryTimes)
• names(DeliveryTimes)<-c("x1")
• attach(DeliveryTimes)
• histogram<-hist(x1,main="Histogram for Delivery Times (minutes)",breaks = seq(20,70,length = 10),right = FALSE)
• breaks<-round(histogram$breaks)
• freq <- histogram$counts
• cum.Freq <- cumsum(freq)
• new<-c()
• for(i in 1:length(breaks)){
•   if(i==1){
•     new[i]=0
•   }
•   else{
•     new[i]=cum.freq[i-1]
•   }
• }
• plot(breaks,new,type='l',main = 'Cumulative Frequency Polygon for Delivery Times',
•      xlab="Delivery Times",ylab="Cumulative Frequency",ylim=c(0,max(cum.freq)))
•

```

Cumulative Frequency Polygon for Delivery Times



```

35 cbind(upper = breaks, cumFreq = new)
36

```

35:37 (Top Level) ↕

Console

Terminal ×

Background Jobs ×

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```

+ new[i]=0
+ }
+ else{
+ new[i]=cum.freq[i-1]
+ }
+ }
> plot(breaks,new,type='l',main = 'Cumulative Frequency Polygon for Delivery Times',
+      xlab="Delivery Times",ylab="Cumulative Frequency",ylim=c(0,max(cum.freq)))
> cbind(upper = breaks, cumFreq = new)
      upper cumFreq
[1,]    20         0
[2,]    26         2
[3,]    31         5
[4,]    37        11
[5,]    42        20
[6,]    48        26
[7,]    53        29
[8,]    59        35
[9,]    64        38
[10,]   70        40
>

```