

IT24102483

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PS Labsheet 08

```
setwd("C:\\Users\\IT24102483\\Desktop\\IT24102483")

data<-read.table("Exercise - Laptopsweights.txt", header=TRUE)
fix(data)
attach(data)

#Q1
popmn<-mean(weight.kg.)
popvar<-var(weight.kg.)
pop_dev <- sd(weight.kg.)
```

Environment	History	Connections	Tutorial
Import Dataset 154 MiB			
R Global Environment			
Data			
data	40 obs. of 1 variable		
samples	num [1:6, 1] 2.23 2.43 2.47 2.46 2.17 2.47		
Values			
i	25		
n	"s 25"		
pop_dev	0.256106948813907		
popmn	2.468		
popvar	0.0655907692307692		
s	num [1:6] 2.23 2.43 2.47 2.46 2.17 2.47		
s.dev	Named num 0.135		
s.means	Named num 2.37		
s.vars	Named num 0.0183		
sampledev	NA_real_		
samplemean	2.371666666666667		

Data Editor						
File Edit Help						
	Weight.kg.	var2	var3	var4	var5	var6
1	2.46					
2	2.45					
3	2.47					
4	2.71					
5	2.46					
6	2.05					
7	2.6					
8	2.42					
9	2.43					
10	2.53					
11	2.57					
12	2.85					
13	2.7					
14	2.53					
15	2.28					
16	2.2					
17	2.57					
18	2.89					
19	2.51					

```

11
12 #Q2
13 samples<-c()
14 n<-c()
15
16 for(i in 25){
17   s<-sample(weight.kg.,6,replace=TRUE)
18   samples<-cbind(samples,s)
19   n<-c(n,paste('s',i))
20 }
21 colnames(samples)=n
22
23 s.means<-apply(samples,2,mean)
24 s.vars<-apply(samples,2,var)
25 s.dev<-apply(samples,2,sd)




```

Environment


History


Connections

Tutorial




Import Dataset ▾

 154 MiB ▾



R ▾

 Global Environment ▾

🔍

Data

▶ data

40 obs. of 1 variable

samples

num [1:6, 1] 2.06 2.57 2.46 2.65 2.28 2.73

Values

i

25

n

"s 25"

pop\_dev

0.256106948813907

popmn

2.468

popvar

0.0655907692307692

s

num [1:6] 2.06 2.57 2.46 2.65 2.28 2.73

s.dev

Named num 0.25

s.means

Named num 2.46

s.vars

Named num 0.0627

sampledev

NA\_real\_

samplemean

2.371666666666667

```

26 |
27 #Q3
28 samplemean<-mean(s.means)
29 sampledev<-sd(s.means)
30
31 popmn
32 samplemean
33
34 pop_dev
35 sampledev

```

Environment

History

Connections

Tutorial

Import Dataset

154 MiB

R

Global Environment

List

Data

data

40 obs. of 1 variable

samples

num [1:6, 1] 2.06 2.57 2.46 2.65 2.28 2.73

Values

i

25

n

"s 25"

pop\_dev

0.256106948813907

popmn

2.468

popvar

0.0655907692307692

s

num [1:6] 2.06 2.57 2.46 2.65 2.28 2.73

s.dev

Named num 0.25

s.means

Named num 2.46

s.vars

Named num 0.0627

sampledev

NA\_real\_

samplemean

2.45833333333333

```

> s.means<-apply(samples,2,mean)
> s.vars<-apply(samples,2,var)
> s.dev<-apply(samples,2,sd)
> #Q3
> samplemean<-mean(s.means)
> sampledev<-sd(s.means)
> popmn
[1] 2.468
> samplemean
[1] 2.386667
> pop_dev
[1] 0.2561069
> sampledev
[1] NA
~

```