

EJERCICIO 1

```

C:\Users\jorge\Desktop\JORGE\CUNEF\MASTER\PROGRAMACIÓN R\PRACTICAS\Practica 5 - RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins

Console Terminal
C:\Users\jorge\Desktop\JORGE\CUNEF\MASTER\PROGRAMACIÓN R\PRACTICAS\Practica 5 /
> deports<- datos$physical #Asignamos a la columna physical de la tabla datos el nombre de deports
> a<- dim(datos) #Asignamos a la dimensión de los datos el nombre "a"
> lista<- vector() #Asignamos a la función vector el nombre "lista"
> contador<-1 #Asignamos a 1 el nombre "contador"
> #Hacemos un if en el que cuando i este entre 1 y 200(a[1]) si en la columna de deporte(Physical) aparece "basketball" devuelve
a
> #la posición en la que se encuentra.
> for (i in 1:a[1]){
+   if (deports[i]=="basketball"){
+     lista[contador] = i
+     contador = contador+1}
+ }
> lista
[1] 11 16 18 36 89 92 96 98 103 107 113 132 141 148 157 176 187 200
> fix(datos) #Hacemos fix para ver la tabla de los datos

Practica 5.R
1 # PRACTICA 5
2 ##
3 ### EJERCICIO 1 ###
4
5 datos<- read.csv("C:/Users/jorge/Desktop/JORGE/CUNEF/MASTER/PROGRAMACIÓN R/student_census.csv", sep=";", header = TRUE)
6 fix(datos) #Hacemos fix para ver la tabla de los datos
7 deports<- datos$physical #Asignamos a la columna physical de la tabla datos el nombre de "deporte"
8 a<- dim(datos) #Asignamos a la dimensión de los datos el nombre "a"
9 lista<- vector() #Asignamos a la función vector el nombre "lista"
10 contador<-1 #Asignamos a 1 el nombre "contador"
11 #Hacemos un if en el que cuando i este entre 1 y 200(a[1]) si en la columna de deporte(Physical) aparece "basketball"
12 #devuelve la posición en la que se encuentra.
13 for (i in 1:a[1]){
14   if (deports[i]=="basketball"){
15     lista[contador] = i
16     contador = contador+1}
17 }
18
19 jugadores<- sample(lista, 5) #coger 5 estudiantes de forma aleatoria
20 <
7:1 (Top Level)
R Script

```

Environment History Connections

Global Environment

Data

datos 200 obs. of 42 vari...

Values

a int [1:2] 200 42

contador 19

deporte Factor w/ 22 levels "...

i 200L

lista int [1:18] 11 16 18 3...

Editor de datos

Archivo Editar Ayuda

	Province	Gender	Language	Height	Arm.Span	Foot.Size	Wrist.Bone	Wrist.Circum	Handedness	Grain	Milk	Vegetable	Meat	Other.Food	Breakfast
1	Ont	M	1	168	157	26	26	120	Right	Y	Y	N	N	N	N
2	Ont	F	2	163	164	26	27	160	Right	N	N	N	Y	N	N
3	Ont	F	4	163	156	22	27	140	Right	Y	Y	N	Y	N	N
4	Alta	F	1	173	167	25	25	150	Right	N	Y	Y	N	N	N
5	Ont	F	3	158	158	24	24	140	Right	Y	N	N	N	N	N
6	Ont	M	3	175	181	26	30	180	Right	N	N	Y	N	N	N
7	Ont	M	2	178	154	26	26	170	Left	N	N	Y	N	N	N
8	Man	M	1	167	169	26	27	175	Right	Y	Y	N	N	N	N
9	Ont	M	1	184	178	30	32	180	Left	Y	Y	Y	Y	N	N
10	Ont	F	1	150	120	27	27	140	Right	Y	N	N	Y	Y	N
11	Alta	M	2	176	185	28	28	160	Right	Y	Y	N	Y	N	N
12	Que	M	1	170	170	25	28	190	Right	N	N	N	N	N	Y
13	Ont	M	2	167	156	26	28	165	Right	Y	Y	N	Y	N	N
14	Sask	F	1	162	160	22	27	155	Right	N	N	N	N	N	Y
15	Ont	M	2	176	175	30	30	190	Right	Y	N	N	N	N	N
16	Alta	F	1	166	159	21	18	150	Right	Y	Y	N	N	N	N
17	Sask	F	2	177	176	25	25	200	Right	Y	Y	Y	N	N	N
18	Que	F	2	155	137	18	19	130	Right	N	N	N	N	N	Y
19	Ont	M	1	173	179	26	27	180	Right	Y	Y	Y	Y	N	N
20	Alta	F	1	166	173	24	27	116	Right	Y	Y	N	Y	N	N
21	Que	F	2	162	167	23	25	140	Left	Y	Y	Y	N	N	N
22	Alta	M	1	166	169	30	28	142	Right	N	N	N	N	N	Y
23	Que	M	2	181	180	28	28	180	Right	Y	Y	N	Y	Y	N
24	Man	M	1	211	211	31	26	180	Right	N	N	N	N	N	Y
25	Ont	M	2	181	180	29	26	170	Right	N	N	N	Y	N	N
26	Ont	M	2	180	177	28	29	170	Right	Y	Y	N	Y	Y	N
27	Ont	F	6	164	164	25	25	102	Right	Y	N	N	N	N	N
28	Que	M	1	173	173	28	29	160	Right	Y	Y	N	N	N	N
29	Ont	M	1	153	154	25	26	230	Left	Y	Y	N	N	Y	N
30	Sask	F	1	173	175	25	26	70	Right	N	N	N	N	Y	N
31	NB	F	2	160	158	23	23	130	Right	Y	Y	N	N	N	N
32	BC	F	1	170	171	26	26	170	Right	Y	Y	N	Y	N	N

19:18 06/11/2017

EJERCICIO 2

C:/Users/jorge/Desktop/JORGE/CUNEF/MASTER/PROGRAMACIÓN R/PRACTICAS/Practica 5 - RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

Practica 5

Files Plots Packages Help Viewer

New Folder Delete Rename More

LOGRAMACIÓN R PRACTICAS Practica 5

Name Size

..

.RData 2.5 KB

.Rhistory 11.9 K

.Rprojuser

Practica 5.R 2.6 KB

Practica 5.Rproj 218 B

Environment History Connections

Global Environment

Data

arm.span 200 obs. of 1 varia...

datos 200 obs. of 42 varia...

foot.size 200 obs. of 1 varia...

height 200 obs. of 1 varia...

matriz 200 obs. of 3 varia...

Values

a int [1:2] 200 42

contador 19

deporte Factor w/ 22 levels "...

i 200L

```
> foot.size<- data.frame(datos$foot.size)
> matriz<- data.frame(height, arm.span, foot.size)
> cor(matriz) #Hacemos la correlación de "matriz" que es un data frame formado por las columnas height, arm.span y foot.size
      datos.Height datos.Arm.Span datos.Foot.Size
datos.Height      1.0000000      0.7498349      0.5006804
datos.Arm.Span      0.7498349      1.0000000      0.4615200
datos.Foot.Size      0.5006804      0.4615200      1.0000000
> (t1<- order(height, arm.span, foot.size)) #ordenamos posiciones de las columnas
 [1] 113 183 144 179 66 10 64 71 154 62 194 63 169 29 139 115 100 197 18 163 89 88 48 153 51 79 171 140 50
[30] 132 5 192 164 195 134 142 123 116 186 77 173 148 157 128 182 178 92 96 31 172 189 146 137 68 159 14 161 37
[59] 90 21 49 136 162 3 170 147 85 126 130 2 44 45 124 36 27 38 119 81 82 188 86 166 42 84 117 16 93
[88] 112 175 22 20 99 13 168 101 43 83 111 8 55 107 143 125 60 1 34 190 104 177 155 110 131 69 180 114 40
[117] 33 91 106 12 61 32 94 35 58 80 185 181 156 72 184 149 54 102 151 109 108 76 87 4 28 158 30 19 145
[146] 167 152 41 196 105 176 73 6 141 122 121 15 46 11 200 127 17 7 97 57 120 75 193 118 95 26 150 135 129
[175] 78 198 23 25 138 74 53 98 70 47 9 67 103 133 165 39 199 160 65 191 187 174 52 56 59 24
> cbind(height, arm.span, foot.size)[t1,] #una vez ordenadas, cbind establece el valor de cada una
      datos.Height datos.Arm.Span datos.Foot.Size
113             126             150             24
```

Practica 5.R

```
20
21 ### EJERCICIO 2 ###
22
23 #Vamos a determinar distintos dataframes con columnas de la tabla datos, estableciendo la propia tabla como un dataframe
24 #que se llame "datos"
25 datos<- data.frame(datos)
26 height<- data.frame(datos$height)
27 arm.span<- data.frame(datos$arm.span)
28 foot.size<- data.frame(datos$foot.size)
29 matriz<- data.frame(height, arm.span, foot.size)
30
31 cor(matriz) #Hacemos la correlación de "matriz" que es un data frame formado por las columnas height, arm.span y foot.si
32
33 (t1<- order(height, arm.span, foot.size)) #ordenamos posiciones de las columnas
34 cbind(height, arm.span, foot.size)[t1,] #una vez ordenadas, cbind establece el valor de cada una
35 plot(datos$Province) #dibujamos un histograma de frecuencias la columna province dentro del dataframe datos
36 <
```

35:1 (Top Level)

R Script

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

Plot Zoom

Console Terminal

C:/Users/jorge/Desktop/JORGE/CUNEF/MASTER/PROGRAMACIÓN R/PRACTICAS/Practica 5 - RStudio

```
133 185 181
165 185 190
39 185 194
199 187 182
160 187 195
65 189 189
191 190 160
187 190 187
174 191 183
52 201 201
56 203 166
59 203 200
24 211 211
> plot(datos$Province)
```

Practica regresión.Rmd

```
17 jugadores<- sample(1:100, 100)
18
19 ### EJERCICIO 2 ###
20
21 datos<- data.frame(datos)
22 height<- data.frame(datos$height)
23 arm.span<- data.frame(datos$arm.span)
24 foot.size<- data.frame(datos$foot.size)
25 matriz<- data.frame(height, arm.span, foot.size)
26
27 cor(matriz)
28
29 (t1<- order(height, arm.span, foot.size)) #ordenamos posiciones de las columnas
30 cbind(height, arm.span, foot.size)[t1,] #una vez ordenadas, cbind establece el valor de cada una
31 plot(datos$Province)
32
33 ### EJERCICIO 4 ###
34
35
```

30:13 (Top Level)

Plot Zoom

Alta BC Man NB NL NS Ont PEI Que Sask

Environment History Connections

Global Environment

height 200 obs. of 1 varia...

matriz 200 obs. of 3 varia...

matriz1 num [1:22, 1:10] 17...

physical 22 obs. of 1 varia...

province 10 obs. of 1 varia...

ps 5 obs. of 2 varia...

Values

a int [1:2] 200 42

contador 0

deporte Factor w/ 22 levels "...

i 1

ii int [1:200] 113 183 1...

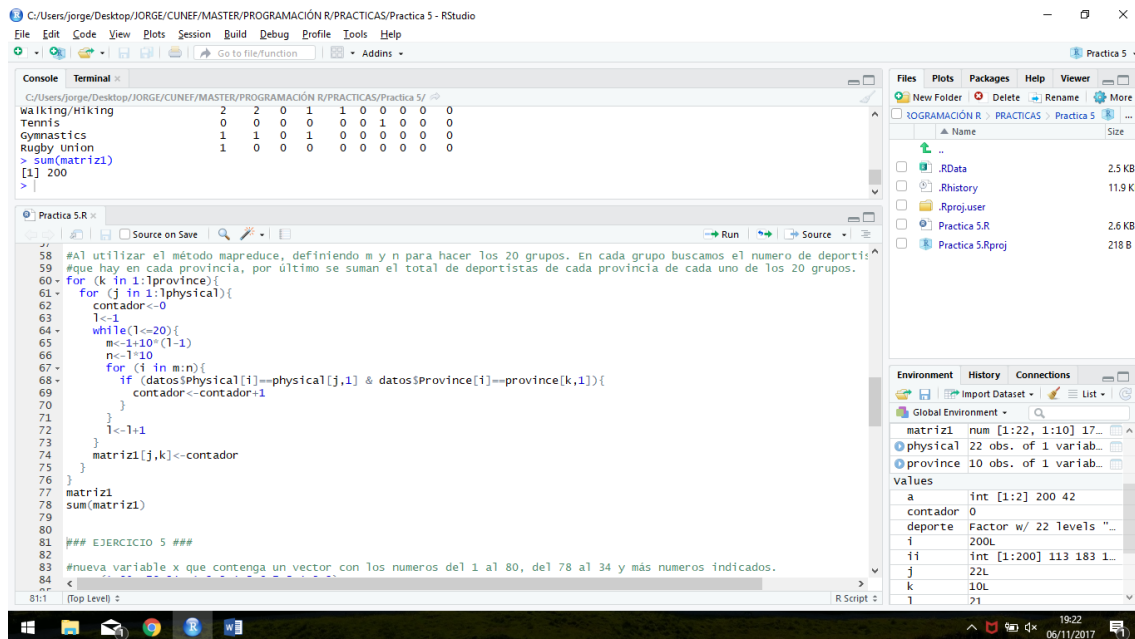
EJERCICIO 4

SCRIPT:

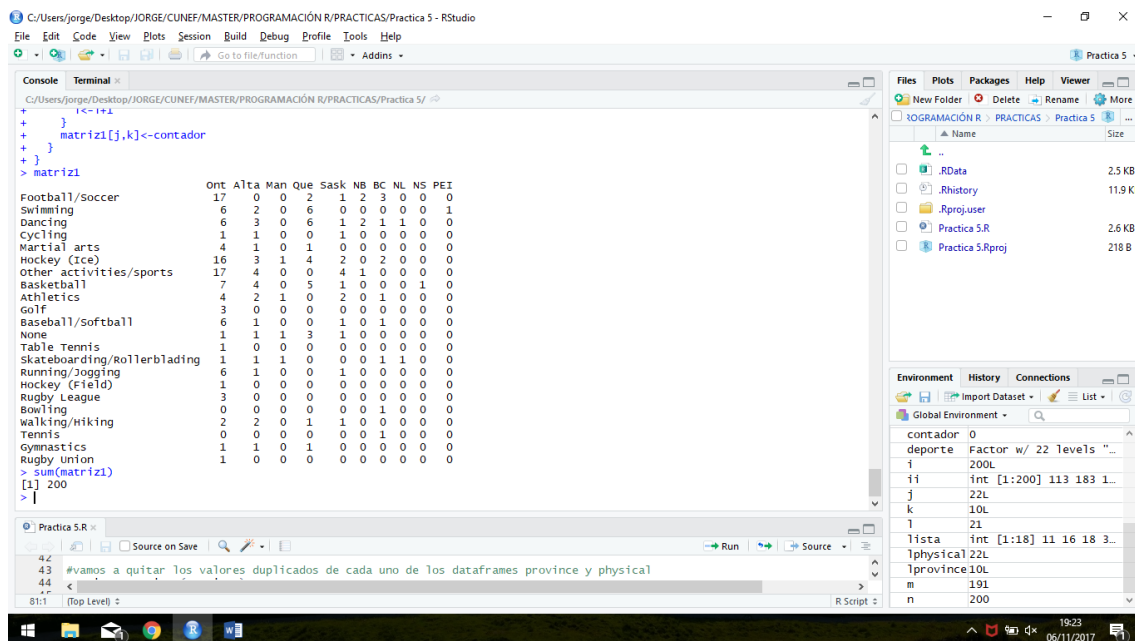
```
C:/Users/jorge/Desktop/JORGE/CUNEF/MASTER/PROGRAMACIÓN R/PRACTICAS/Practica 5 - RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins

Console Terminal
C:/Users/jorge/Desktop/JORGE/CUNEF/MASTER/PROGRAMACIÓN R/PRACTICAS/Practica 5 />
Walking/Hiking      2  2  0  1  1  0  0  0  0
Tennis              0  0  0  0  0  0  1  0  0
Gymnastics          1  1  0  1  0  0  0  0  0
Rugby union         1  0  0  0  0  0  0  0  0
> sum(matriz1)
[1] 200
>

Practica 5.R
38 ### EJERCICIO 4 ###
39
40 physical<- data.frame(datos$Physical)
41 province<- data.frame(datos$Province)
42
43 #vamos a quitar los valores duplicados de cada uno de los dataframes province y physical
44 province<- unique(province)
45 physical<- unique(physical)
46
47 #Una vez eliminados los duplicados sabremos las dimensiones que va a tener la matriz, en la que iremos contando el número
48 #de deportistas de cada deporte que hay en cada provincia.
49 lphysical<- dim(physical)
50 lprovince<- lphysical[1]
51 lprovince<- dim(province)
52 lprovince<- lprovince[1]
53
54 matriz1<- matrix(0, nrow=lphysical, ncol=lprovince)
55 rownames(matriz1)<-physical[,1]
56 colnames(matriz1)<-province[,1]
57
58 #Al utilizar el método mapreduce, definiendo m y n para hacer los 20 grupos. En cada grupo buscamos el número de deportistas
59 #que hay en cada provincia, por último se suman el total de deportistas de cada provincia de cada uno de los 20 grupos.
60 for (k in 1:lprovince){
61   for (j in 1:lphysical){
62     contador<-0
63     l<-1
64     for (i in 1:lphysical){
65       for (m in 1:lprovince){
66         if (physical[i,1]==physical[j,1] && province[m,1]==province[k,1]){
67           contador<-contador+1
68         }
69       }
70     }
71     matriz1[j,k]<-contador
72   }
73 }
74
75 Environment History Connections
Global Environment
matriz1 num [1:22, 1:10] 17...
physical 22 obs. of 1 variab...
province 10 obs. of 1 variab...
Values
a      int [1:2] 200 42
contador 0
deporte  Factor w/ 22 levels "
i      int [1:200] 113 183 1
j      22L
k      10L
l      21
```



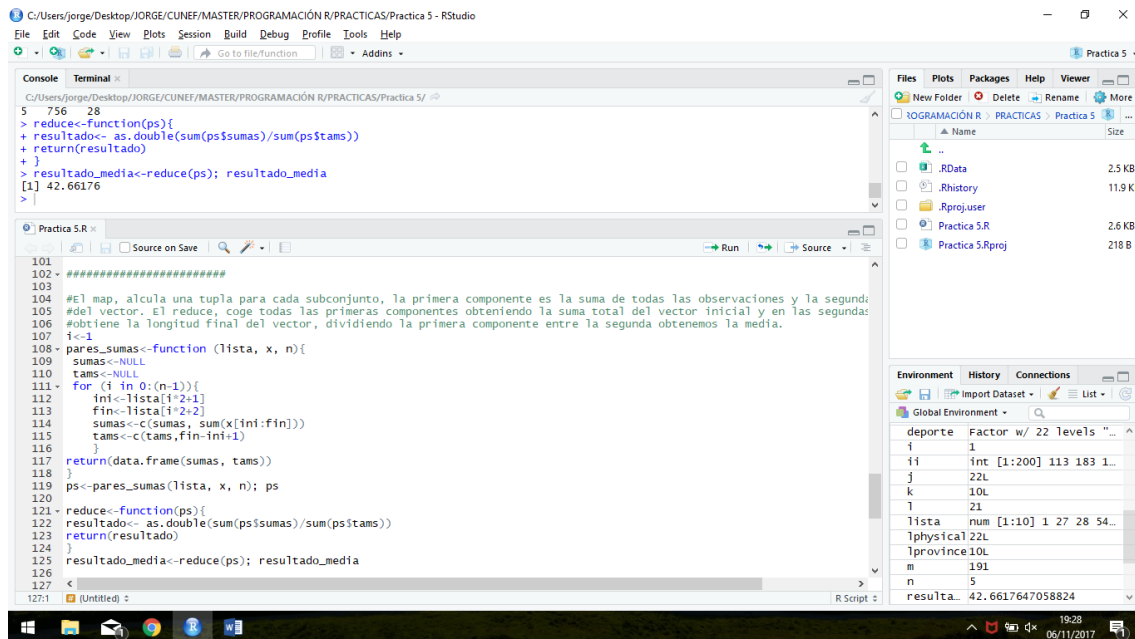
CONSOLA:



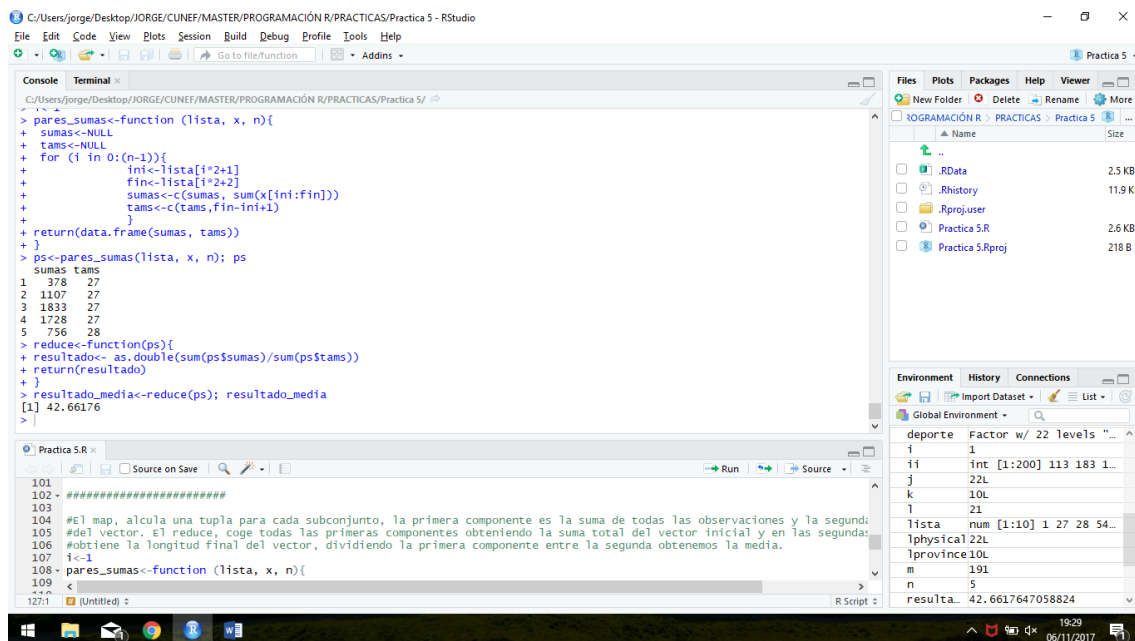
EJERCICIO 5

The screenshot shows the RStudio interface with the following components:

- Console:** Displays the execution of the `divideenBloques` function. The output is a list with one element, `lista`, which is a vector of 136 numbers: `[1] 1 27 28 54 55 81 82 108 109 136`.
- Source Editor:** Contains the R script for the exercise. It includes a function definition for `divideenBloques` and a call to the function with `x` and `n`.
- Environment:** Shows the objects in the global environment, including `contador`, `deporte`, `l1`, `l2`, `l3`, `l4`, `l5`, `l6`, `l7`, `l8`, `l9`, `l10`, `l11`, `l12`, `l13`, `l14`, `l15`, `l16`, `l17`, `l18`, `l19`, `l20`, `l21`, `l22`, `l23`, `l24`, `l25`, `l26`, `l27`, `l28`, `l29`, `l30`, `l31`, `l32`, `l33`, `l34`, `l35`, `l36`, `l37`, `l38`, `l39`, `l40`, `l41`, `l42`, `l43`, `l44`, `l45`, `l46`, `l47`, `l48`, `l49`, `l50`, `l51`, `l52`, `l53`, `l54`, `l55`, `l56`, `l57`, `l58`, `l59`, `l60`, `l61`, `l62`, `l63`, `l64`, `l65`, `l66`, `l67`, `l68`, `l69`, `l70`, `l71`, `l72`, `l73`, `l74`, `l75`, `l76`, `l77`, `l78`, `l79`, `l80`, `l81`, `l82`, `l83`, `l84`, `l85`, `l86`, `l87`, `l88`, `l89`, `l90`, `l91`, `l92`, `l93`, `l94`, `l95`, `l96`, `l97`, `l98`, `l99`, `l100`, `l101`, `l102`, `l103`, `l104`, `l105`, `l106`, `l107`, `l108`, `l109`, `l110`, `l111`, `l112`, `l113`, `l114`, `l115`, `l116`, `l117`, `l118`, `l119`, `l120`, `l121`, `l122`, `l123`, `l124`, `l125`, `l126`, `l127`, `l128`, `l129`, `l130`, `l131`, `l132`, `l133`, `l134`, `l135`, `l136`, `l137`, `l138`, `l139`, `l140`, `l141`, `l142`, `l143`, `l144`, `l145`, `l146`, `l147`, `l148`, `l149`, `l150`, `l151`, `l152`, `l153`, `l154`, `l155`, `l156`, `l157`, `l158`, `l159`, `l160`, `l161`, `l162`, `l163`, `l164`, `l165`, `l166`, `l167`, `l168`, `l169`, `l170`, `l171`, `l172`, `l173`, `l174`, `l175`, `l176`, `l177`, `l178`, `l179`, `l180`, `l181`, `l182`, `l183`, `l184`, `l185`, `l186`, `l187`, `l188`, `l189`, `l190`, `l191`, `l192`, `l193`, `l194`, `l195`, `l196`, `l197`, `l198`, `l199`, `l200`, `l201`, `l202`, `l203`, `l204`, `l205`, `l206`, `l207`, `l208`, `l209`, `l210`, `l211`, `l212`, `l213`, `l214`, `l215`, `l216`, `l217`, `l218`, `l219`, `l220`, `l221`, `l222`, `l223`, `l224`, `l225`, `l226`, `l227`, `l228`, `l229`, `l230`, `l231`, `l232`, `l233`, `l234`, `l235`, `l236`, `l237`, `l238`, `l239`, `l240`, `l241`, `l242`, `l243`, `l244`, `l245`, `l246`, `l247`, `l248`, `l249`, `l250`, `l251`, `l252`, `l253`, `l254`, `l255`, `l256`, `l257`, `l258`, `l259`, `l260`, `l261`, `l262`, `l263`, `l264`, `l265`, `l266`, `l267`, `l268`, `l269`, `l270`, `l271`, `l272`, `l273`, `l274`, `l275`, `l276`, `l277`, `l278`, `l279`, `l280`, `l281`, `l282`, `l283`, `l284`, `l285`, `l286`, `l287`, `l288`, `l289`, `l290`, `l291`, `l292`, `l293`, `l294`, `l295`, `l296`, `l297`, `l298`, `l299`, `l300`, `l301`, `l302`, `l303`, `l304`, `l305`, `l306`, `l307`, `l308`, `l309`, `l310`, `l311`, `l312`, `l313`, `l314`, `l315`, `l316`, `l317`, `l318`, `l319`, `l320`, `l321`, `l322`, `l323`, `l324`, `l325`, `l326`, `l327`, `l328`, `l329`, `l330`, `l331`, `l332`, `l333`, `l334`, `l335`, `l336`, `l337`, `l338`, `l339`, `l340`, `l341`, `l342`, `l343`, `l344`, `l345`, `l346`, `l347`, `l348`, `l349`, `l350`, `l351`, `l352`, `l353`, `l354`, `l355`, `l356`, `l357`, `l358`, `l359`, `l360`, `l361`, `l362`, `l363`, `l364`, `l365`, `l366`, `l367`, `l368`, `l369`, `l370`, `l371`, `l372`, `l373`, `l374`, `l375`, `l376`, `l377`, `l378`, `l379`, `l380`, `l381`, `l382`, `l383`, `l384`, `l385`, `l386`, `l387`, `l388`, `l389`, `l390`, `l391`, `l392`, `l393`, `l394`, `l395`, `l396`, `l397`, `l398`, `l399`, `l400`, `l401`, `l402`, `l403`, `l404`, `l405`, `l406`, `l407`, `l408`, `l409`, `l410`, `l411`, `l412`, `l413`, `l414`, `l415`, `l416`, `l417`, `l418`, `l419`, `l420`, `l421`, `l422`, `l423`, `l424`, `l425`, `l426`, `l427`, `l428`, `l429`, `l430`, `l431`, `l432`, `l433`, `l434`, `l435`, `l436`, `l437`, `l438`, `l439`, `l440`, `l441`, `l442`, `l443`, `l444`, `l445`, `l446`, `l447`, `l448`, `l449`, `l450`, `l451`, `l452`, `l453`, `l454`, `l455`, `l456`, `l457`, `l458`, `l459`, `l460`, `l461`, `l462`, `l463`, `l464`, `l465`, `l466`, `l467`, `l468`, `l469`, `l470`, `l471`, `l472`, `l473`, `l474`, `l475`, `l476`, `l477`, `l478`, `l479`, `l480`, `l481`, `l482`, `l483`, `l484`, `l485`, `l486`, `l487`, `l488`, `l489`, `l490`, `l491`, `l492`, `l493`, `l494`, `l495`, `l496`, `l497`, `l498`, `l499`, `l500`, `l501`, `l502`, `l503`, `l504`, `l505`, `l506`, `l507`, `l508`, `l509`, `l510`, `l511`, `l512`, `l513`, `l514`, `l515`, `l516`, `l517`, `l518`, `l519`, `l520`, `l521`, `l522`, `l523`, `l524`, `l525`, `l526`, `l527`, `l528`, `l529`, `l530`, `l531`, `l532`, `l533`, `l534`, `l535`, `l536`, `l537`, `l538`, `l539`, `l540`, `l541`, `l542`, `l543`, `l544`, `l545`, `l546`, `l547`, `l548`, `l549`, `l550`, `l551`, `l552`, `l553`, `l554`, `l555`, `l556`, `l557`, `l558`, `l559`, `l560`, `l561`, `l562`, `l563`, `l564`, `l565`, `l566`, `l567`, `l568`, `l569`, `l570`, `l571`, `l572`, `l573`, `l574`, `l575`, `l576`, `l577`, `l578`, `l579`, `l580`, `l581`, `l582`, `l583`, `l584`, `l585`, `l586`, `l587`, `l588`, `l589`, `l590`, `l591`, `l592`, `l593`, `l594`, `l595`, `l596`, `l597`, `l598`, `l599`, `l600`, `l601`, `l602`, `l603`, `l604`, `l605`, `l606`, `l607`, `l608`, `l609`, `l610`, `l611`, `l612`, `l613`, `l614`, `l615`, `l616`, `l617`, `l618`, `l619`, `l620`, `l621`, `l622`, `l623`, `l624`, `l625`, `l626`, `l627`, `l628`, `l629`, `l630`, `l631`, `l632`, `l633`, `l634`, `l635`, `l636`, `l637`, `l638`, `l639`, `l640`, `l641`, `l642`, `l643`, `l644`, `l645`, `l646`, `l647`, `l648`, `l649`, `l650`, `l651`, `l652`, `l653`, `l654`, `l655`, `l656`, `l657`, `l658`, `l659`, `l660`, `l661`, `l662`, `l663`, `l664`, `l665`, `l666`, `l667`, `l668`, `l669`, `l670`, `l671`, `l672`, `l673`, `l674`, `l675`, `l676`, `l677`, `l678`, `l679`, `l680`, `l681`, `l682`, `l683`, `l684`, `l685`, `l686`, `l687`, `l688`, `l689`, `l690`, `l691`, `l692`, `l693`, `l694`, `l695`, `l696`, `l697`, `l698`, `l699`, `l700`, `l701`, `l702`, `l703`, `l704`, `l705`, `l706`, `l707`, `l708`, `l709`, `l710`, `l711`, `l712`, `l713`, `l714`, `l715`, `l716`, `l717`, `l718`, `l719`, `l720`, `l721`, `l722`, `l723`, `l724`, `l725`, `l726`, `l727`, `l728`, `l729`, `l730`, `l731`, `l732`, `l733`, `l734`, `l735`, `l736`, `l737`, `l738`, `l739`, `l740`, `l741`, `l742`, `l743`, `l744`, `l745`, `l746`, `l747`, `l748`, `l749`, `l750`, `l751`, `l752`, `l753`, `l754`, `l755`, `l756`, `l757`, `l758`, `l759`, `l760`, `l761`, `l762`, `l763`, `l764`, `l765`, `l766`, `l767`, `l768`, `l769`, `l770`, `l771`, `l772`, `l773`, `l774`, `l775`, `l776`, `l777`, `l778`, `l779`, `l780`, `l781`, `l782`, `l783`, `l784`, `l785`, `l786`, `l787`, `l788`, `l789`, `l790`, `l791`, `l792`, `l793`, `l794`, `l795`, `l796`, `l797`, `l798`, `l799`, `l800`, `l801`, `l802`, `l803`, `l804`, `l805`, `l806`, `l807`, `l808`, `l809`, `l810`, `l811`, `l812`, `l813`, `l814`, `l815`, `l816`, `l817`, `l818`, `l819`, `l820`, `l821`, `l822`, `l823`, `l824`, `l825`, `l826`, `l827`, `l828`, `l829`, `l830`, `l831`, `l832`, `l833`, `l834`, `l835`, `l836`, `l837`, `l838`, `l839`, `l840`, `l841`, `l842`, `l843`, `l844`, `l845`, `l846`, `l847`, `l848`, `l849`, `l850`, `l851`, `l852`, `l853`, `l854`, `l855`, `l856`, `l857`, `l858`, `l859`, `l860`, `l861`, `l862`, `l863`, `l864`, `l865`, `l866`, `l867`, `l868`, `l869`, `l870`, `l871`, `l872`, `l873`, `l874`, `l875`, `l876`, `l877`, `l878`, `l879`, `l880`, `l881`, `l882`, `l883`, `l884`, `l885`, `l886`, `l887`, `l888`, `l889`, `l890`, `l891`, `l892`, `l893`, `l894`, `l895`, `l896`, `l897`, `l898`, `l899`, `l900`, `l901`, `l902`, `l903`, `l904`, `l905`, `l906`, `l907`, `l908`, `l909`, `l910`, `l911`, `l912`, `l913`, `l914`, `l915`, `l916`, `l917`, `l918`, `l919`, `l920`, `l921`, `l922`, `l923`, `l924`, `l925`, `l926`, `l927`, `l928`, `l929`, `l930`, `l931`, `l932`, `l933`, `l934`, `l935`, `l936`, `l937`, `l938`, `l939`, `l940`, `l941`, `l942`, `l943`, `l944`, `l945`, `l946`, `l947`, `l948`, `l949`, `l950`, `l951`, `l952`, `l953`, `l954`, `l955`, `l956`, `l957`, `l958`, `l959`, `l960`, `l961`, `l962`, `l963`, `l964`, `l965`, `l966`, `l967`, `l968`, `l969`, `l970`, `l971`, `l972`, `l973`, `l974`, `l975`, `l976`, `l977`, `l978`, `l979`, `l980`, `l981`, `l982`, `l983`, `l984`, `l985`, `l986`, `l987`, `l988`, `l989`, `l990`, `l991`, `l992`, `l993`, `l994`, `l995`, `l996`, `l997`, `l998`, `l999`, `l1000`, `l1001`, `l1002`, `l1003`, `l1004`, `l1005`, `l1006`, `l1007`, `l1008`, `l1009`, `l1010`, `l1011`, `l1012`, `l1013`, `l1014`, `l1015`, `l1016`, `l1017`, `l1018`, `l1019`, `l1020`, `l1021`, `l1022`, `l1023`, `l1024`, `l1025`, `l1026`, `l1027`, `l1028`, `l1029`, `l1030`, `l1031`, `l1032`, `l1033`, `l1034`, `l1035`, `l1036`, `l1037`, `l1038`, `l1039`, `l1040`, `l1041`, `l1042`, `l1043`, `l1044`, `l1045`, `l1046`, `l1047`, `l1048`, `l1049`, `l1050`, `l1051`, `l1052`, `l1053`, `l1054`, `l1055`, `l1056`, `l1057`, `l1058`, `l1059`, `l1060`, `l1061`, `l1062`, `l1063`, `l1064`, `l1065`, `l1066`, `l1067`, `l1068`, `l1069`, `l1070`, `l1071`, `l1072`, `l1073`, `l1074`, `l1075`, `l1076`, `l1077`, `l1078`, `l1079`, `l1080`, `l1081`, `l1082`, `l1083`, `l1084`, `l1085`, `l1086`, `l1087`, `l1088`, `l1089`, `l1090`, `l1091`, `l1092`, `l1093`, `l1094`, `l1095`, `l1096`, `l1097`, `l1098`, `l1099`, `l1100`, `l1101`, `l1102`, `l1103`, `l1104`, `l1105`, `l1106`, `l1107`, `l1108`, `l1109`, `l1110`, `l1111`, `l1112`, `l1113`, `l1114`, `l1115`, `l1116`, `l1117`, `l1118`, `l1119`, `l1120`, `l1121`, `l1122`, `l1123`, `l1124`, `l1125`, `l1126`, `l1127`, `l1128`, `l1129`, `l1130`, `l1131`, `l1132`, `l1133`, `l1134`, `l1135`, `l1136`, `l1137`, `l1138`, `l1139`, `l1140`, `l1141`, `l1142`, `l1143`, `l1144`, `l1145`, `l1146`, `l1147`, `l1148`, `l1149`, `l1150`, `l1151`, `l1152`, `l1153`, `l1154`, `l1155`, `l1156`, `l1157`, `l1158`, `l1159`, `l1160`, `l1161`, `l1162`, `l1163`, `l1164`, `l1165`, `l1166`, `l1167`, `l1168`, `l1169`, `l1170`, `l1171`, `l1172`, `l1173`, `l1174`, `l1175`, `l1176`, `l1177`, `l1178`, `l1179`, `l1180`, `l1181`, `l1182`, `l1183`, `l1184`, `l1185`, `l1186`, `l1187`, `l1188`, `l1189`, `l1190`, `l1191`, `l1192`, `l1193`, `l1194`, `l1195`, `l1196`, `l1197`, `l1198`, `l1199`, `l1200`,



CONSOLA SEGUNDA PARTE:



EJERCICIO 6:

The screenshot shows the RStudio interface with the following components:

- Console:** Displays the execution of the `busca` function. The first call returns 42.66176. Subsequent calls with arguments `(0, 100, 100)` show intermediate steps: `[1] 9 16`, `[1] 18 22`, and `[1] 100 100`.
- Source Editor:** Contains the R script for "EJERCICIO 6". The function `busca` is defined as follows:

```
127 ## EJERCICIO 6 ##
128
129 #El enunciado nos dice que l y h son dos números naturales donde:
130 # - h está entre 0 y 51
131 # - l entre 0 y h-1.
132 #El objetivo de esta fórmula, es que el resultado de la misma nos representa que la suma de los números dentro de los int
133 #9-16 y 18-22 (ambos números inclusive en ambos intervalos) suman 100.
134
135 busca <- function (l, h, st){
136   if (l<=st) {if (sum(1:h) ==st) {print(cc(l, h))
137     return(busca(l+1, l+1, st))}}
138   else {if (sum(1:h)<st) return(busca(l, h+1, st))
139     else return(busca(l+1, l+1, st))}}
140 }
141
142 busca(0,100, 100)
143 <-
140-4 busca(l, h, st) :
```
- Files Panel:** Shows the project structure with folders like `ROGRAMACIÓN R` and `PRACTICAS`, and files like `Practica 5.Rproj` (218 B).
- Environment Panel:** Displays the current environment with variables:

Variable	Value
i1	int [1:200] 113 183 1...
j	22L
k	10L
l	21
lista	num [1:10] 1 27 28 54...
physical	22L
province	10L
m	191
n	5
resulta	42.6617647058824
x	num [1:136] 1 2 3 4 5...