23BCE9360 - C N S SWAROOP LAB - L57/L58

FDA LAB ASSIGNMENT - 4

Dr. Voddelli Sri Lakshmi

FDA LAB ASSIGNMENT - 4

Q1: Iris Flowers Description This famous (Fisher or Anderson) iris data set gives the measurements in

centimetres of the variables sepal length and width and petal length and width, respectively, for 50

flowers from each of 3 species of iris. The species are Iris setosa, versicolor, and virginica.

Open iris data set in R and do the following

Print the dataset iris

Print the structure of the dataset iris

Print the summary of all the variables of the dataset iris (Hint: Use function summary())

How many of the variables (columns) are in the dataset iris

How many observations (rows) are in the dataset iris

Print last 3 rows without using tail() function

Print the elements of 3rd column

Print all the elements of 2nd row

Print all the elements of 2nd, 5th and 13th row

Print all odd indexed rows (rows 1,3,5,...) (Hint: Use function - seq)

Print first three columns

Print the elements of columns from 5 to 10

Print the elements of columns from 3 to 7, 9 and 11

Print the elements of rows from 15 to 20

Print First, Second Row and Second and Third Column

Print element at 2nd row, third column

Print all the rows having " Sepal.Width " value greater than 1.4

Print all the rows having " Sepal.Width " value less than 2.5

Sort the observations of the dataset "iris" in incresing order based on the values in the column

"Sepal.Width"

Sort the observations of the dataset "iris" by column "Sepal.Width" in increasing order and column

"Petal.Width" in decreasing order

Use duplicated() function to print the logical vector indicating the duplicate values present in the

dataset iris

Extract duplicate elements from the dataset iris

Extract unique elements from the dataset iris

Print the indices of unique elements in the dataset iris How many unique elements are in the dataset iris How many duplicate elements are in the dataset iris CODE: # Load dataset data(iris) # 1. Print the dataset print(iris) # 2. Print the structure of the dataset str(iris) # 3. Print summary of all variables summary(iris) # 4. Number of variables (columns) num cols <- ncol(iris)</pre> print(num_cols) # 5. Number of observations (rows) num_rows <- nrow(iris)</pre> print(num_rows) # 6. Print last 3 rows without using tail() function print(iris[(nrow(iris) - 2):nrow(iris),]) #7. Print elements of 3rd column print(iris[, 3]) #8. Print all elements of 2nd row print(iris[2,]) #9. Print all elements of 2nd, 5th, and 13th row print(iris[c(2, 5, 13),]) # 10. Print all odd indexed rows print(iris[seq(1, nrow(iris), 2),]) # 11. Print first three columns print(iris[, 1:3]) # 12. Print elements of columns from 5 to 10 (iris has only 5 columns, so this will show only the 5th column) print(iris[, 5, drop=FALSE]) # 13. Print elements of columns from 3 to 7, 9, and 11 (iris has only 5 columns, so it cannot extract beyond 5) print(iris[, 3:5, drop=FALSE]) # 14. Print elements of rows from 15 to 20

print(iris[15:20,])

Print the indices of duplicate elements in the dataset iris

```
# 15. Print First and Second Row, and Second and Third Column print(iris[1:2, 2:3])
```

16. Print element at 2nd row, 3rd column print(iris[2, 3])

17. Print all rows where "Sepal.Width" is greater than 1.4 print(iris[iris\$Sepal.Width > 1.4,])

18. Print all rows where "Sepal.Width" is less than 2.5 print(iris[iris\$Sepal.Width < 2.5,])

19. Sort dataset by "Sepal.Width" in increasing order print(iris[order(iris\$Sepal.Width),])

20. Sort dataset by "Sepal.Width" (ascending) and "Petal.Width" (descending) print(iris[order(iris\$Sepal.Width, -iris\$Petal.Width),])

21. Use duplicated() to print logical vector for duplicate values print(duplicated(iris))

22. Extract duplicate elements print(iris[duplicated(iris),])

23. Extract unique elements print(unique(iris))

24. Print indices of duplicate elements print(which(duplicated(iris)))

25. Print indices of unique elements print(which(!duplicated(iris)))

26. Count unique elements num_unique <- nrow(unique(iris)) print(num_unique)

27. Count duplicate elements num_duplicates <- nrow(iris) - num_unique print(num_duplicates)

OUTPUT:

Sepal. Length Sepal. Multh Species 2 4.9 3.0 1.4 0.2 setosa 3 4.7 3.2 1.3 0.2 setosa 4 4.6 3.1 1.5 0.2 setosa 5 5.0 3.6 1.4 0.2 setosa 6 5.4 3.9 1.7 0.4 setosa 7 4.6 3.4 1.4 0.3 setosa 8 5.0 3.4 1.5 0.2 setosa 9 4.4 2.9 1.4 0.2 setosa 10 4.9 3.1 1.5 0.1 setosa 11 5.4 3.7 1.5 0.2 setosa 12 4.8 3.0 1.4 0.1 setosa 13 4.8 3.0 1.4 0.1 setosa 13 4.8 3.0 1.1 0.1 setosa 15 5.8		Sonal Longth	Conal Width	Potal Longth	Potal Width	Species
2	1					· ·
3 4,7 3,2 1,3 0,2 setosa 6 5,0 3,6 1,4 0,2 setosa 6 5,4 3,9 1,7 0,4 setosa 7 4,6 3,4 1,5 0,2 setosa 8 5,0 3,4 1,5 0,2 setosa 9 4,4 2,9 1,4 0,2 setosa 10 4,9 3,1 1,5 0,1 setosa 11 5,4 3,7 1,5 0,2 setosa 12 4,8 3,4 1,6 0,2 setosa 13 4,8 3,0 1,4 0,1 setosa 14 4,3 3,0 1,1 0,1 setosa 15 5,8 4,0 1,2 0,2 setosa 16 5,7 4,4 1,5 0,4 setosa 17 5,4 3,9 1,3 0,4 setosa						
4						
5 5.0 3.6 1.4 0.2 setosa 6 5.4 3.9 1.7 0.4 setosa 7 4.6 3.4 1.5 0.2 setosa 8 5.0 3.4 1.5 0.2 setosa 10 4.9 3.1 1.5 0.1 setosa 11 5.4 3.7 1.5 0.2 setosa 12 4.8 3.4 1.6 0.2 setosa 13 4.8 3.4 1.6 0.2 setosa 14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa						
7 4.6 3.4 1.4 0.3 setosa 8 5.0 3.4 1.5 0.2 setosa 9 4.4 2.9 1.4 0.2 setosa 10 4.9 3.1 1.5 0.1 setosa 11 5.4 3.7 1.5 0.2 setosa 13 4.8 3.0 1.4 0.1 setosa 14 4.3 3.0 1.1 0.1 setosa 14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa	5			1.4		setosa
8 5.0 3.4 1.5 0.2 setosa 9 4.4 2.9 1.4 0.2 setosa 10 4.9 3.1 1.5 0.1 setosa 11 5.4 3.7 1.5 0.2 setosa 11 5.4 3.7 1.5 0.2 setosa 11 5.4 3.7 1.5 0.2 setosa 12 4.8 3.4 1.6 0.2 setosa 14 4.3 3.0 1.4 0.1 setosa 14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 18 5.1 3.5 1.4 0.3 setosa 18 5.1 3.5 1.4 0.3 setosa 18 5.7 3.8 1.7 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.7 1.5 0.4 setosa 25 5.4 8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 38 5.2 3.5 1.5 0.2 setosa 39 4.7 3.2 1.6 0.4 setosa 31 4.8 3.1 1.6 0.2 setosa 31 4.8 3.1 1.5 0.4 setosa 32 5.4 3.4 1.5 0.2 setosa 34 4.7 3.2 1.6 0.2 setosa 34 4.8 3.1 1.5 0.2 setosa 34 4.7 3.2 1.6 0.2 setosa 34 4.7 3.2 1.6 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 34 5.5 4.2 1.4 0.2 setosa 34 4.9 3.1 1.5 0.2 setosa 34 4.9 3.6 1.4 0.1 setosa 35 5.2 3.5 1.3 0.2 setosa 36 5.0 3.5 1.3 0.3 setosa 4.9 3.6 1.4 0.1 setosa 4.9 3.6 1.4 0.2 setosa 4.1 1.5 0.2 setosa 4.	6	5.4	3.9	1.7	0.4	setosa
9	7	4.6	3.4	1.4	0.3	setosa
10	8	5.0	3.4	1.5	0.2	setosa
11 5.4 3.7 1.5 0.2 setosa 12 4.8 3.4 1.6 0.2 setosa 13 4.8 3.0 1.1 0.1 setosa 14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 22 5.1 3.5 1.4 0.2 setosa 22 5.1 3.3 1.7 0.5 setosa </td <td>9</td> <td></td> <td></td> <td></td> <td></td> <td>setosa</td>	9					setosa
12						
13 4.8 3.0 1.4 0.1 setosa 14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 22 5.1 3.5 1.6 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
14 4.3 3.0 1.1 0.1 setosa 15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 22 5.1 3.7 1.5 0.4 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
15 5.8 4.0 1.2 0.2 setosa 16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
16 5.7 4.4 1.5 0.4 setosa 17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 22 5.1 3.7 1.5 0.4 setosa 24 5.1 3.3 1.7 0.5 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.2 setosa 28 5.2 3.4 1.4 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
17 5.4 3.9 1.3 0.4 setosa 18 5.1 3.5 1.4 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 26 5.0 3.4 1.6 0.2 setosa 27 5.0 3.4 1.6 0.2 setosa 28 5.2 3.5 1.5 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
18 5.1 3.5 1.4 0.3 setosa 19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 28 5.2 3.5 1.5 0.2 setosa 28 5.2 3.4 1.4 0.2 setosa 29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
19 5.7 3.8 1.7 0.3 setosa 20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.2 setosa 28 5.2 3.5 1.5 0.2 setosa 29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
20 5.1 3.8 1.5 0.3 setosa 21 5.4 3.4 1.7 0.2 setosa 22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 28 5.2 3.5 1.5 0.2 setosa 28 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa </td <td>19</td> <td></td> <td></td> <td></td> <td></td> <td></td>	19					
22 5.1 3.7 1.5 0.4 setosa 23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.1 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa </td <td>20</td> <td></td> <td>3.8</td> <td>1.5</td> <td></td> <td>setosa</td>	20		3.8	1.5		setosa
23 4.6 3.6 1.0 0.2 setosa 24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 32 5.4 3.4 1.5 0.4 setosa 32 5.4 3.4 1.5 0.4 setosa 32 5.4 1.1 1.5 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa </td <td>21</td> <td></td> <td>3.4</td> <td></td> <td></td> <td>setosa</td>	21		3.4			setosa
24 5.1 3.3 1.7 0.5 setosa 25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa </td <td>22</td> <td>5.1</td> <td>3.7</td> <td>1.5</td> <td>0.4</td> <td>setosa</td>	22	5.1	3.7	1.5	0.4	setosa
25 4.8 3.4 1.9 0.2 setosa 26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 31 4.8 3.1 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>setosa</td>						setosa
26 5.0 3.0 1.6 0.2 setosa 27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 32 5.4 3.4 1.5 0.4 setosa 34 5.5 4.2 1.4 0.2 setosa 34 5.5 4.2 1.4 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
27 5.0 3.4 1.6 0.4 setosa 28 5.2 3.5 1.5 0.2 setosa 29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
28 5.2 3.5 1.5 0.2 setosa 29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
29 5.2 3.4 1.4 0.2 setosa 30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
30 4.7 3.2 1.6 0.2 setosa 31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
31 4.8 3.1 1.6 0.2 setosa 32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 40 5.1 3.4 1.5 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa						
32 5.4 3.4 1.5 0.4 setosa 33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
33 5.2 4.1 1.5 0.1 setosa 34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.3 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 45 5.1 3.8 1.6 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
34 5.5 4.2 1.4 0.2 setosa 35 4.9 3.1 1.5 0.2 setosa 36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 40 5.1 3.4 1.5 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 45 5.1 3.8 1.6 0.2 setosa </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
36 5.0 3.2 1.2 0.2 setosa 37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.3 setosa 43 4.4 3.2 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 45 5.1 3.8 1.9 0.4 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa </td <td>34</td> <td></td> <td></td> <td></td> <td></td> <td></td>	34					
37 5.5 3.5 1.3 0.2 setosa 38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa	35	4.9	3.1	1.5	0.2	setosa
38 4.9 3.6 1.4 0.1 setosa 39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa	36	5.0	3.2	1.2	0.2	setosa
39 4.4 3.0 1.3 0.2 setosa 40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor <	37	5.5	3.5	1.3	0.2	setosa
40 5.1 3.4 1.5 0.2 setosa 41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.2 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor <						setosa
41 5.0 3.5 1.3 0.3 setosa 42 4.5 2.3 1.3 0.3 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor <td></td> <td></td> <td></td> <td></td> <td></td> <td>setosa</td>						setosa
42 4.5 2.3 1.3 0.3 setosa 43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor						
43 4.4 3.2 1.3 0.2 setosa 44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versico						
44 5.0 3.5 1.6 0.6 setosa 45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 59 6.6 2.9 4.6 1.3 ver						
45 5.1 3.8 1.9 0.4 setosa 46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 60 5.2 2.7 3.9 1.4 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
46 4.8 3.0 1.4 0.3 setosa 47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 61 5.0 2.0 3.5 1.0						
47 5.1 3.8 1.6 0.2 setosa 48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0						
48 4.6 3.2 1.4 0.2 setosa 49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
49 5.3 3.7 1.5 0.2 setosa 50 5.0 3.3 1.4 0.2 setosa 51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65						
51 7.0 3.2 4.7 1.4 versicolor 52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6	49					
52 6.4 3.2 4.5 1.5 versicolor 53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor	50	5.0	3.3	1.4	0.2	setosa
53 6.9 3.1 4.9 1.5 versicolor 54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor	51	7.0	3.2	4.7	1.4	versicolor
54 5.5 2.3 4.0 1.3 versicolor 55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
55 6.5 2.8 4.6 1.5 versicolor 56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
56 5.7 2.8 4.5 1.3 versicolor 57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
57 6.3 3.3 4.7 1.6 versicolor 58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
58 4.9 2.4 3.3 1.0 versicolor 59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
59 6.6 2.9 4.6 1.3 versicolor 60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
60 5.2 2.7 3.9 1.4 versicolor 61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
61 5.0 2.0 3.5 1.0 versicolor 62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor						
62 5.9 3.0 4.2 1.5 versicolor 63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor		5.7				
63 6.0 2.2 4.0 1.0 versicolor 64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor			2.0		1.0	VCI SICOIOI
64 6.1 2.9 4.7 1.4 versicolor 65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor	61	5.0				versicolor
65 5.6 2.9 3.6 1.3 versicolor 66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor	61 62	5.0 5.9	3.0	4.2	1.5	
66 6.7 3.1 4.4 1.4 versicolor 67 5.6 3.0 4.5 1.5 versicolor	61 62 63	5.0 5.9 6.0	3.0 2.2	4.2 4.0	1.5 1.0	versicolor
67 5.6 3.0 4.5 1.5 versicolor	61 62 63 64	5.0 5.9 6.0 6.1	3.0 2.2 2.9	4.2 4.0 4.7	1.5 1.0 1.4	versicolor versicolor
68 5.8 2.7 4.1 1.0 versicolor	61 62 63 64 65	5.0 5.9 6.0 6.1 5.6	3.0 2.2 2.9 2.9	4.2 4.0 4.7 3.6	1.5 1.0 1.4 1.3	versicolor versicolor versicolor
217 110 1202	61 62 63 64 65 66	5.0 5.9 6.0 6.1 5.6 6.7	3.0 2.2 2.9 2.9 3.1	4.2 4.0 4.7 3.6 4.4	1.5 1.0 1.4 1.3	versicolor versicolor versicolor versicolor

```
data.frame': 150 obs. of 5 variables:
$ Sepal.Length: num 5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
$ Sepal.Width : num 3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
$ Petal.Length: num 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
$ Petal.Width : num 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
$ Species : Factor w/ 3 levels "setosa", "versicolor", ...: 1 1 1 1 1 1 1 1 1 1 1 ...
                             Petal.Length Petal.Width
 Sepal.Length
               Sepal.Width
                             Min. :1.000
 Min. :4.300
               Min. :2.000
                                            Min. :0.100
              1st Qu.:5.100
 Median :5.800
              Mean :3.057 Mean :3.758 Mean :1.199
3rd Qu.:3.300 3rd Qu.:5.100 3rd Qu.:1.800
 Mean :5.843
 3rd Qu.:6.400
 Max. :7.900 Max. :4.400 Max. :6.900 Max. :2.500
      Species
 setosa :50
 versicolor:50
 virginica :50
[1] 5
[1] 150
   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
148
           6.5 3.0 5.2
                                            2.0 virginica
149
           6.2
                      3.4
                                  5.4
                                             2.3 virginica
150
           5.9
                      3.0
                                  5.1
                                             1.8 virginica
 [1] 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 1.5 1.6 1.4 1.1 1.2 1.5 1.3 1.4
[19] 1.7 1.5 1.7 1.5 1.0 1.7 1.9 1.6 1.6 1.5 1.4 1.6 1.6 1.5 1.5 1.4 1.5 1.2
 [37] 1.3 1.4 1.3 1.5 1.3 1.3 1.3 1.6 1.9 1.4 1.6 1.4 1.5 1.4 4.7 4.5 4.9 4.0
[55] 4.6 4.5 4.7 3.3 4.6 3.9 3.5 4.2 4.0 4.7 3.6 4.4 4.5
```