

module - 5

Graphs and Charts

barplot

- Bar plots can be created using barplot function
- We can ~~supply~~ supply vector or matrix to the function
- if we supply a bar the plot will have a bar with a height equal to vector in the list

bar chart with added parameter
temp = (27, 28, 29, 24, 26, 28, 25)

barplot (max.temp,

main = "Maximum temperature in Week"

lab = "Degree Celsius"

ylab = "Day"

names.arg = c("Sun", "Mon", "Tue", "Wed", "Thur", "Fri", "Sat")

Col = "blue" horiz = T)

Display graph horizontally

Series = 200

Shades
graph instead of color
border = red
just color to border

Series = heading
X lab - X axis name

Y lab = Y axis name
Same as - same of each bar
Col - Color name of the bar

horiz - horizontal graph (horiz = true)
density - Shading (density = 10)
border - bar border color

Pie chart



Section: Pie (X)

eg 2 = (1, 1, 2, 2, 3, 3, 4, 4)

Pie (Y)

* counts = heading
> pie (Y) main = Series

X = input values
Labels - to give labels names for slides

edges - Circular of Pie is approximated by a Polygon with many edges
Edges = 200

Radius - how change radius - default 0.8
max = 1

Clockwise - to label in Clockwise direction
(Clockwise = 1)

density - to shade pie
dble Shading each side
eg density = (10, 20, 30, 40)

Col - to give color
col = rainbow (13)

border - to give border
border = 1

Histogram

$x = (1, 2, 3, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 4)$

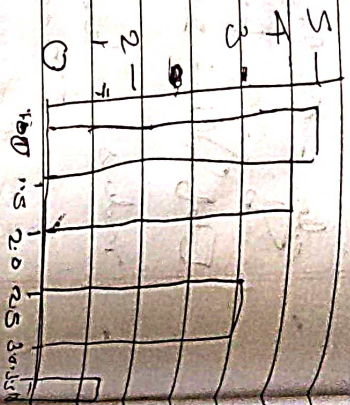
$y = \text{table}(x)$

$\gg x$

1 2 3 4
5 4 3 2

$\gg \text{hist}(x)$

To See Grouping:
 $\gg \text{cut}(x, 6)$



$\# \text{mean} = \text{heading}$

$\times \text{labs} = \text{X-axis name}$

$\times \text{ylab} = \text{y-axis name}$

$\times \text{ylim} = \text{y-limit}$

$\times \text{ylim} = \text{y-limit}$

$\times \text{col} = \text{color}$

$\times \text{density} = \text{Shading density} = (20, 30, 40)$

$\times \text{freq} = \text{get the probability distribution}$

$\times \text{is.freq} = \text{frequency}$

$\times \text{freq} = \text{false}$

$\times \text{las} = \text{to show the limit values horizontally}$

$\times \text{las} = \text{True}$

$\times \text{border} = \text{no of cells we want}$

$\times \text{place} = \text{where the break occur}$

$\times \text{counts} = \text{no of observations falling in that cell}$

$\text{plot}[\text{label}]$

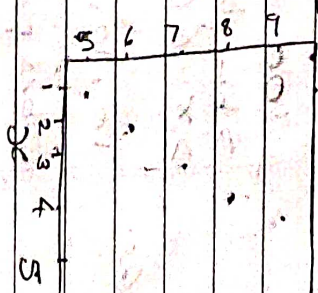
Scatter Plot $\text{plot}(x)$

$\gg \text{plot}(c(5, 6, 7, 8, 9))$

$\gg y = 1:5$

$\gg x = 6:10$

$\gg \text{plot}(x, y)$



$\times \text{main} = \text{heading}$

$\times \text{labs} = \text{X-axis name}$

$\times \text{ylab} = \text{Y-axis name}$

$\times \text{col} = \text{color}$

$\times \text{type} = 'p' \text{ for point}$

$\times \text{type} = 'l' \text{ for line}$

1b - bottle line 8 point
 'e' - for the part alone of 'b'
 'h' - for inst upon
 's' - for spec
 'n' - for plating

Box Plot

$\bar{x} = C(1,1,1,1,2,2,2,3,3,3,3,4,4,4,5)$

100, 200)

Boxplot (x)

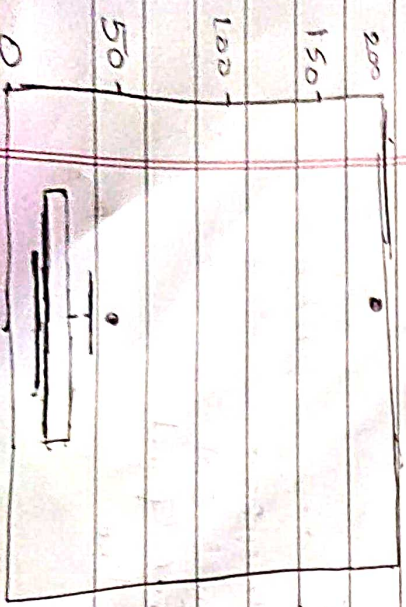
$\bar{x} = C(1,1,1,1,2,2,2,3,3,3,3,4,4,4,5)$

Boxplot (x)

Boxplot (x)

1

Max 45 and 200 are outliers



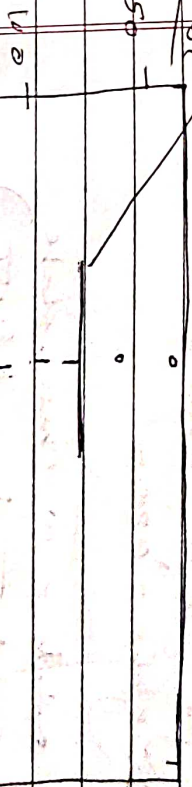
eg 2: (for equality)

data frame: 153 obs of 6 Variable:

\$ ozone : int 4 36 12 18 NA 28 23 19 8 NA
 \$ solar.R : int 190 118 149 303 NA NA 299 99 19 194
 \$ wind : num 7.4 8 12.6 11.5 14.3 14.7 8.6 13.8 20.4 18.4
 \$ temp : int 67 72 74 62 56 65 65 59 64 69
 \$ mont : int 5 5 5 5 5 5 5 5 5 5
 \$ Day : int 1 2 3 4 5 6 7 8 9 10

show base (air quality for ozone)

ozone



50



min

median

range = max - min

Footplot arguments

* in - to give heading

> Densplot (unequality for zone)

> Bepplot (unequality for zones mean = "mean")

Ozone 10 parts per Billion

* xlab = To give X axis name

> xlab = "part per billion"

* ylab = To give y axis name

> ylab = "Ozone"

* cex = To change size

notch = T, horizontal = T

multiple box in single plot

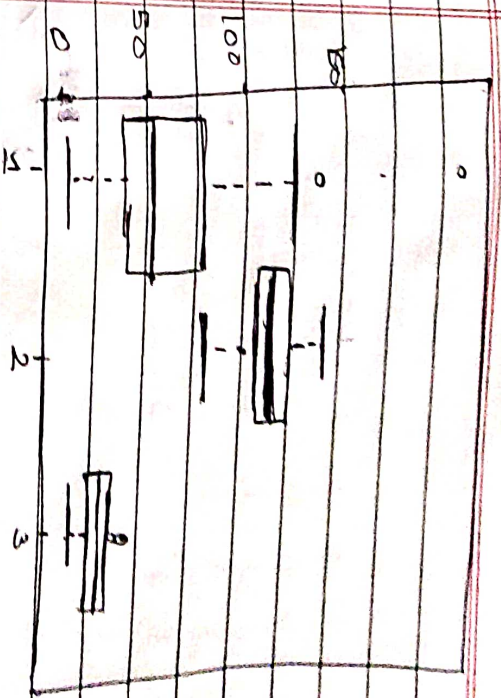
eg: 202 ~ unequality for zone

> temp ~ unequality for zone

> wind ~ unequality for wind

> backplot (2, temp, wind)

output



> color

> bwidh - To change bwidh

> border - To change border color