R Barplot

Plot can create R using barplot()

eg; max.temp = c(22, 27, 26, 24, 23, 26, 28)

barplot(max.temp),

main = "maximum temperature",

xlab = "Degree celsius",

ylab = "Day",

col = "red",

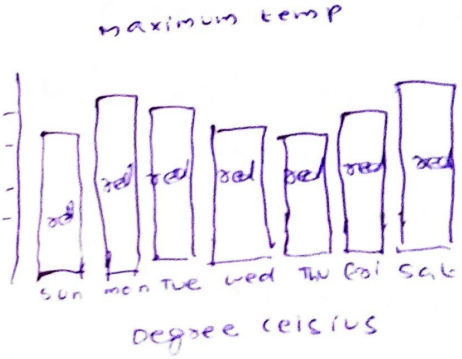
names.arg = c("sun" . . . "sat"))

or

horiz = TRUE or FALSE,

density = 10 ,

border = "blue",



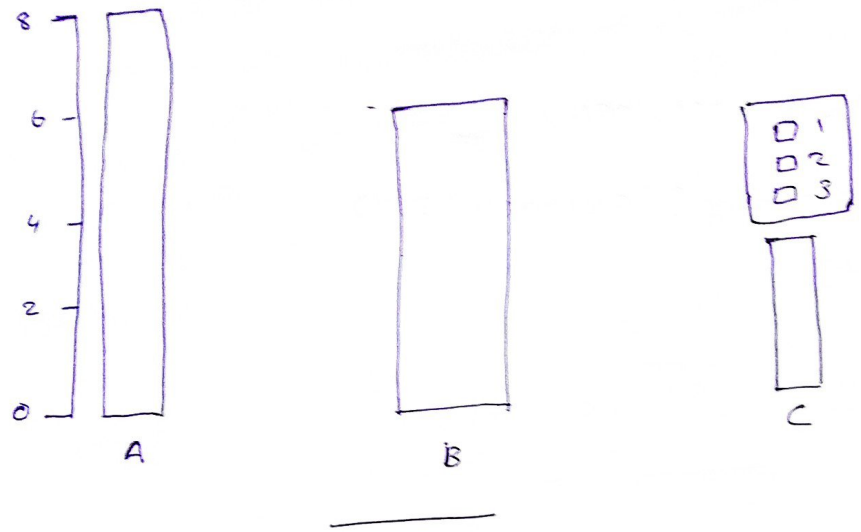
---

x = c(1,1,1,1,1,1,2,2,2,2,3,3,3,1,1,2,2,3,3)

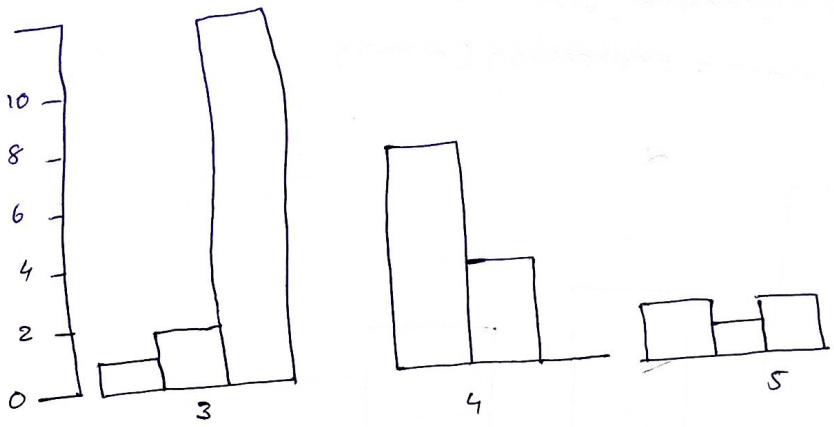
Y = table(x)

barplot(height = Y, names.arg = LETTERS[1:3],

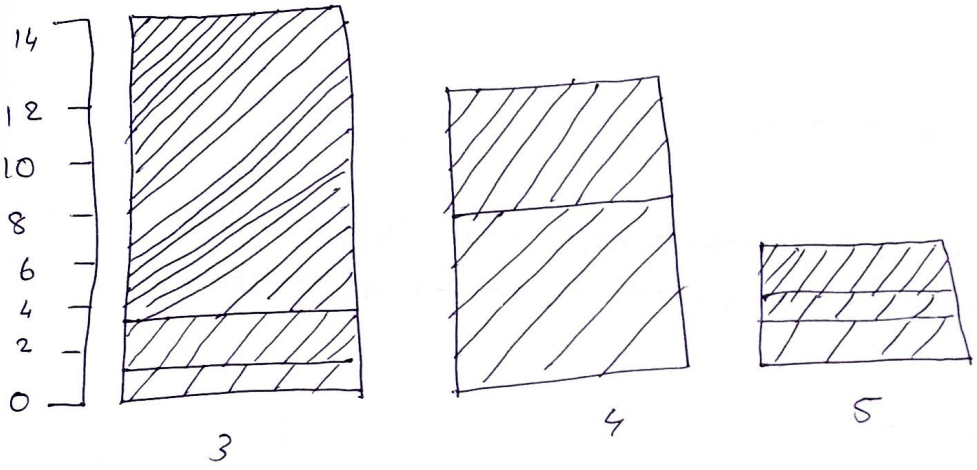
space = 5, width = c(5,8,2), legend.text = T)




```
> data("mtcars")
> names(mtcars)
> "mpg" "cyl" "disp" "hp" "drat" "wt" "qsec" "vs" "am" "gear"
> mtcars$cyl
  6 6 4 6 8 6 8 4 4 6 6 8 8 8 8 8 4 4 4 4 8 8 8 8 4 4 4 8 6 8 4
>mtcars$gear
  4 4 4 3 3 3 3 4 4 4 4 3 3 3 3 3 3 4 4 4 3 3 3 3 3 4 5 5 5 5 4
>table(mtcars$cyl)
  4  6  8
 11  7 14
>table(mtcars$gear)
  3  4  5
 15 12  5
>table(mtcars$cyl, mtcars$gear)
    3  4  5
4   1  8  2
6   2  4  1
8  12  0  2
> y1 = table(mtcars$cyl, mtcars$gear)
> barplot(y1, beside = T)
```

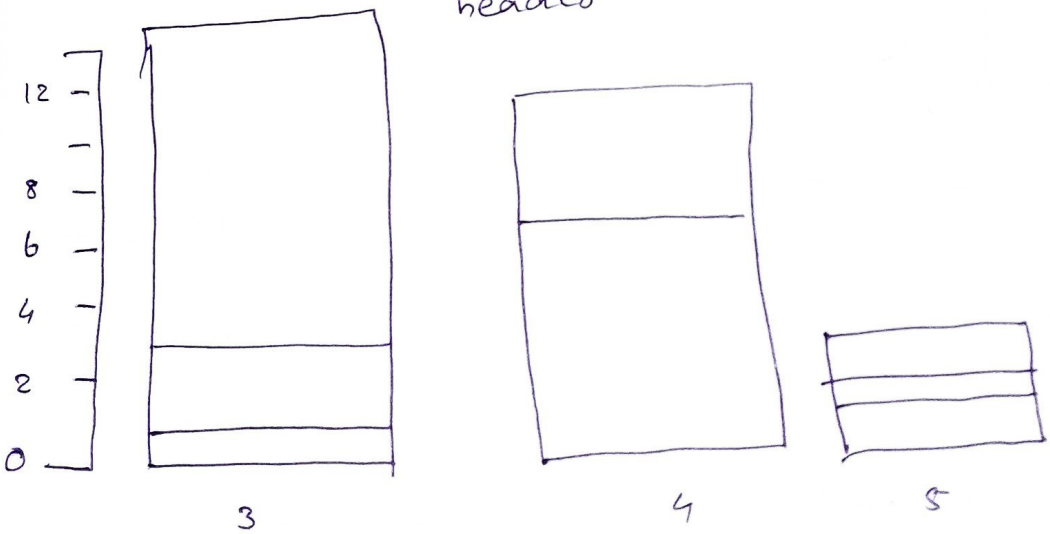


barplot(y1, horiz=T, las = 1, density = c(5,10,15), angle = c(45,50,75), col = "red"



barplot(y1, main = "header", sub = "footer", border = T)

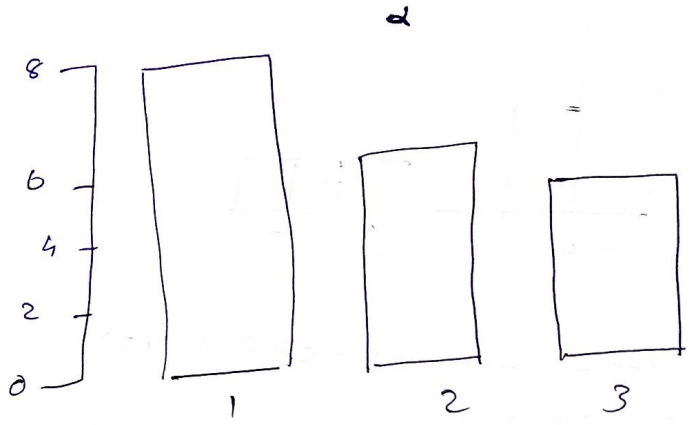
header



footer

barplot(y1, ylim = c(0,10), xlim c(0,5)

barplot(y1, main = expression(alpha))

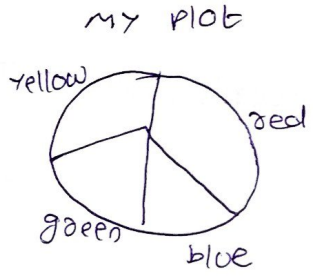


R pie chart

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

y = table(x)

pie(y, main = "my plot", labels = c("red", "blue", "green", "yellow"), edges = 200, radius. 5, clockwise = T, col = 1:4, border = T)



library(plotrix)

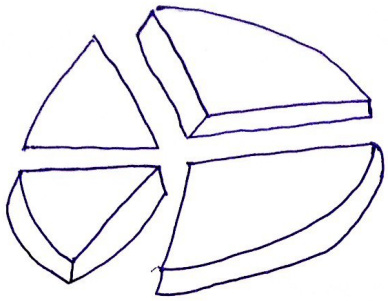
? pie3D

pie3D(y)

pie3D(y, explode = .5)

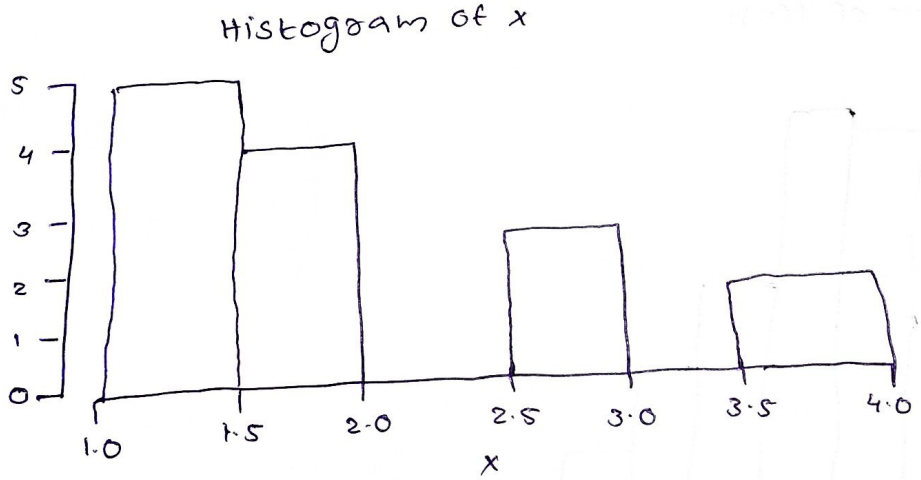
pie3D(y, explode = .2)

pie3D(y, explode = .1)



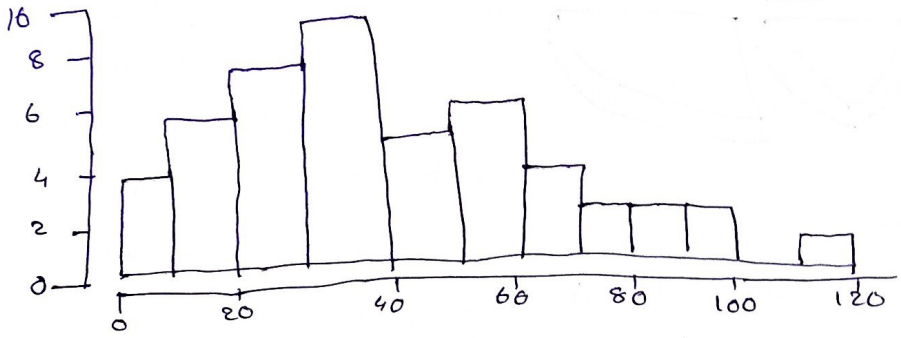
R histogram

```
> x = c(1, 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 4)
> x
 1 1 1 1 1 2 2 2 2 3 3 3 4 4
> hist(x)
```



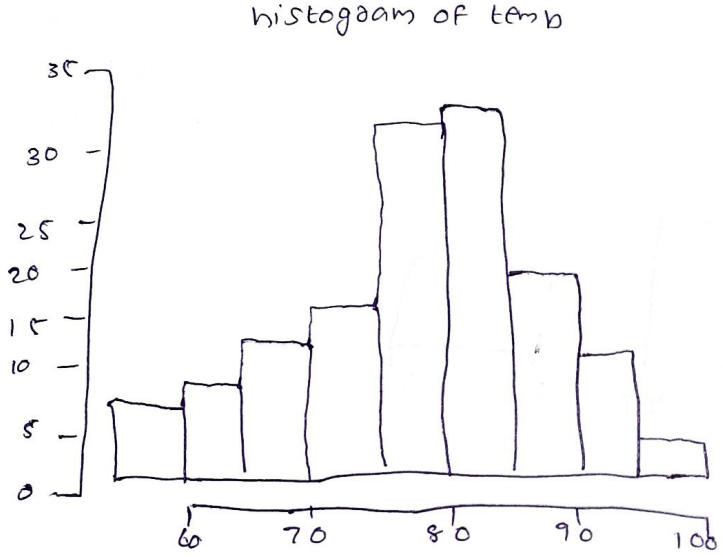

```
> hist(cars$dist)
```

hist(cars$ dist, breaks = 10, main = "my histogram", xlab = " ",
ylab = " ")



airquality

temp = airquality $temp
hist (temp)

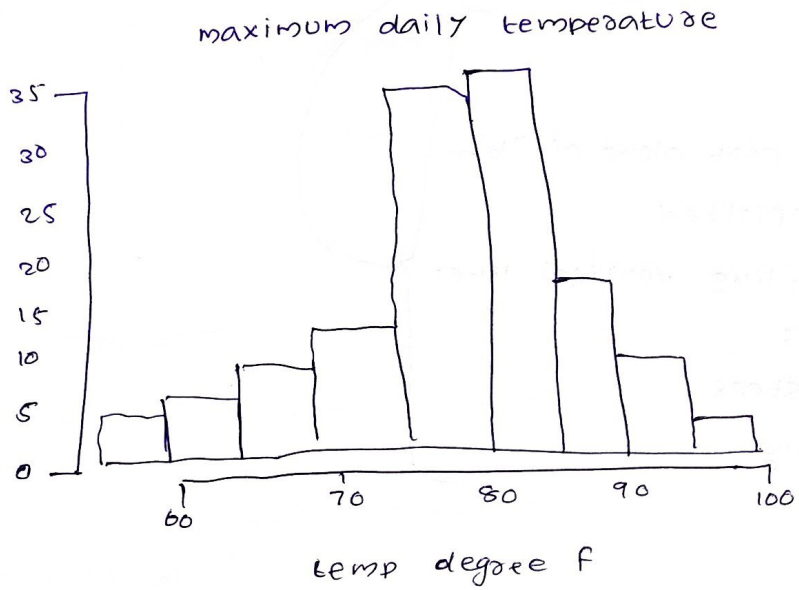


> str (airquality)

* main, xlab and ylab, xlim and ylim, col
* freq = FALSE

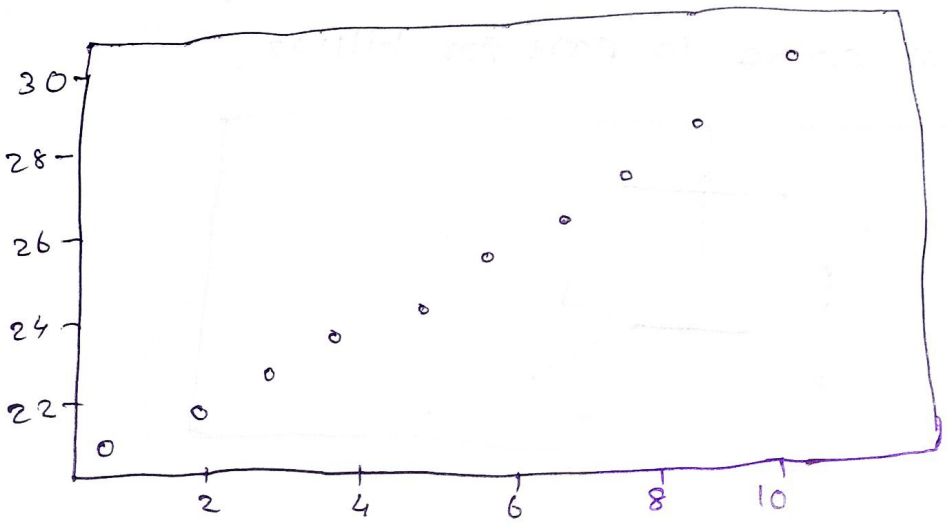
ab = " "

hist(temp, main = "maximum daily temperature",
xlab = " Temp in degree F ", col = rainbow(20))



R scatter plot

```
> x = 1:10
> y = 21:30
> plot(x, y)
> plot(x, y, main = "scatter plot", xlab = "x values", ylab = "y values", col = 1:10)
```



plot(x,y, main = "scatter plot", xlab = "x values", ylab = "y values",
col = 1:10, type = "p")

"p" -> for points
"l" -> for lines
"b" -> for both
"c" -> for the lines part alone of "b".
"o" -> for both overplotted
"h" -> for histogram like vertical lines
"s" -> for stair steps
"s" -> for other steps
"n" -> for no plotting

R - Box Plots

```
>str(airquality)
'data.frame': 153 obs. of 6 variables:
 $ Ozone  : int 41 36 12 18 NA 28 23 19 8 NA ...
 $ Solar.R: int 190 118 149 313 NA NA 299 99 19 194 ...
 $ Wind   : num 7.4 8 12.6 11.5 14.3 14.9 8.6 13.8 20.1 8.6 ...
 $ Temp   : int 67 72 74 62 56 66 65 59 61 69 ...
 $ Month  : int 5 5 5 5 5 5 5 5 5 5 ...
 $ Day    : int 1 2 3 4 5 6 7 8 9 10 ...
```

```
>boxplot(airquality$Ozone)
>boxplot(airquality$Ozone, main="mean ozone in parts per billion", xlab="parts per billion", ylab="Ozone", col="red", notch=T)
```