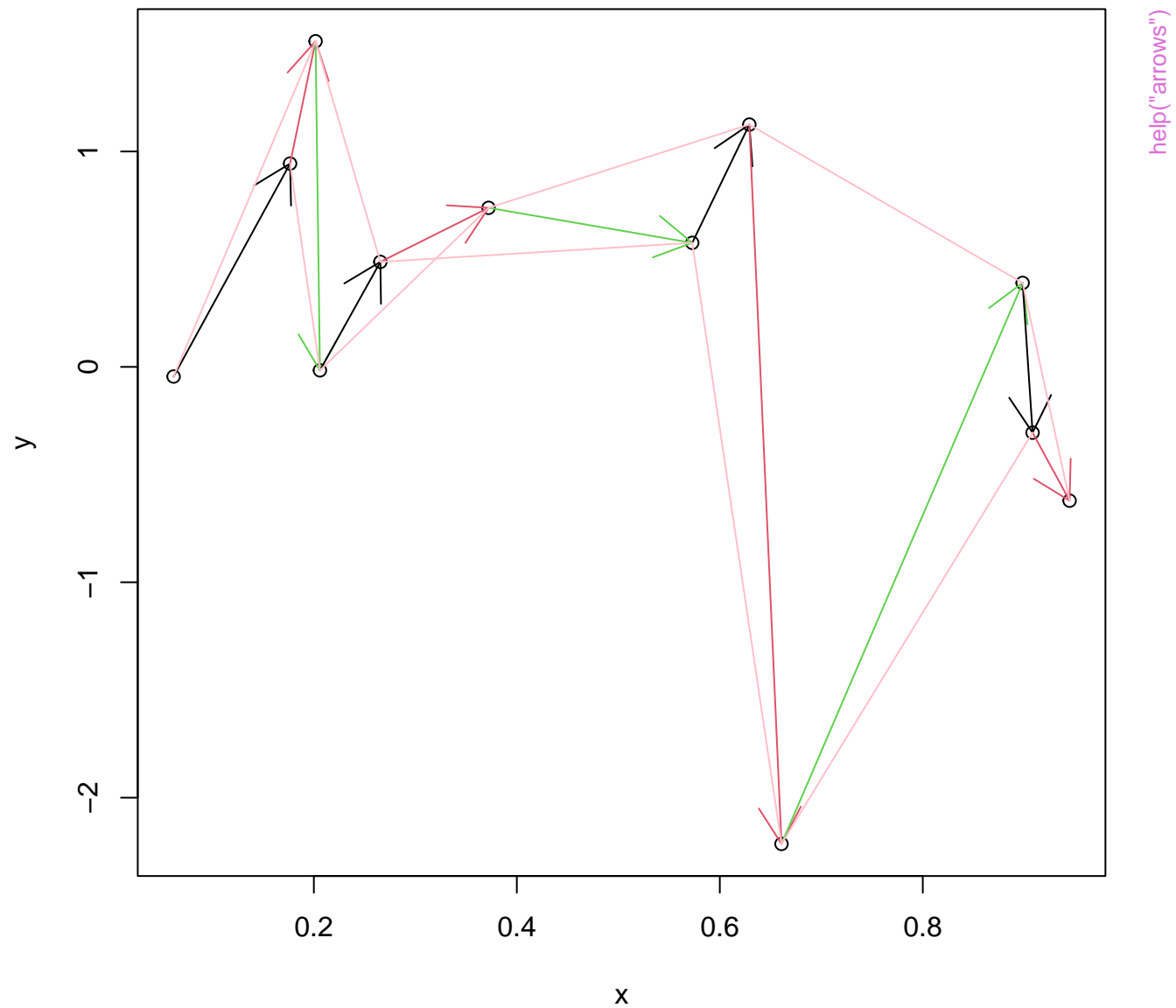
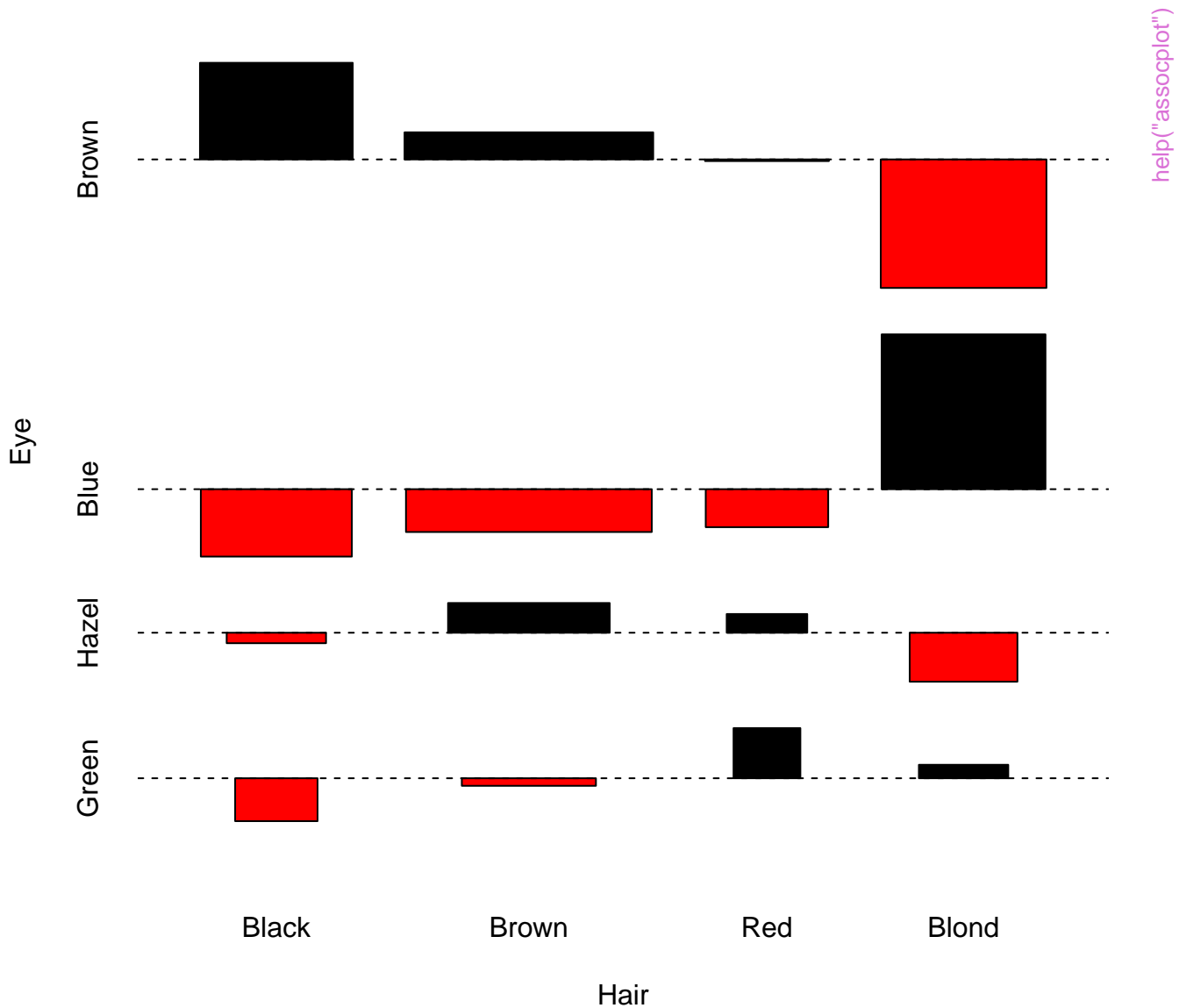
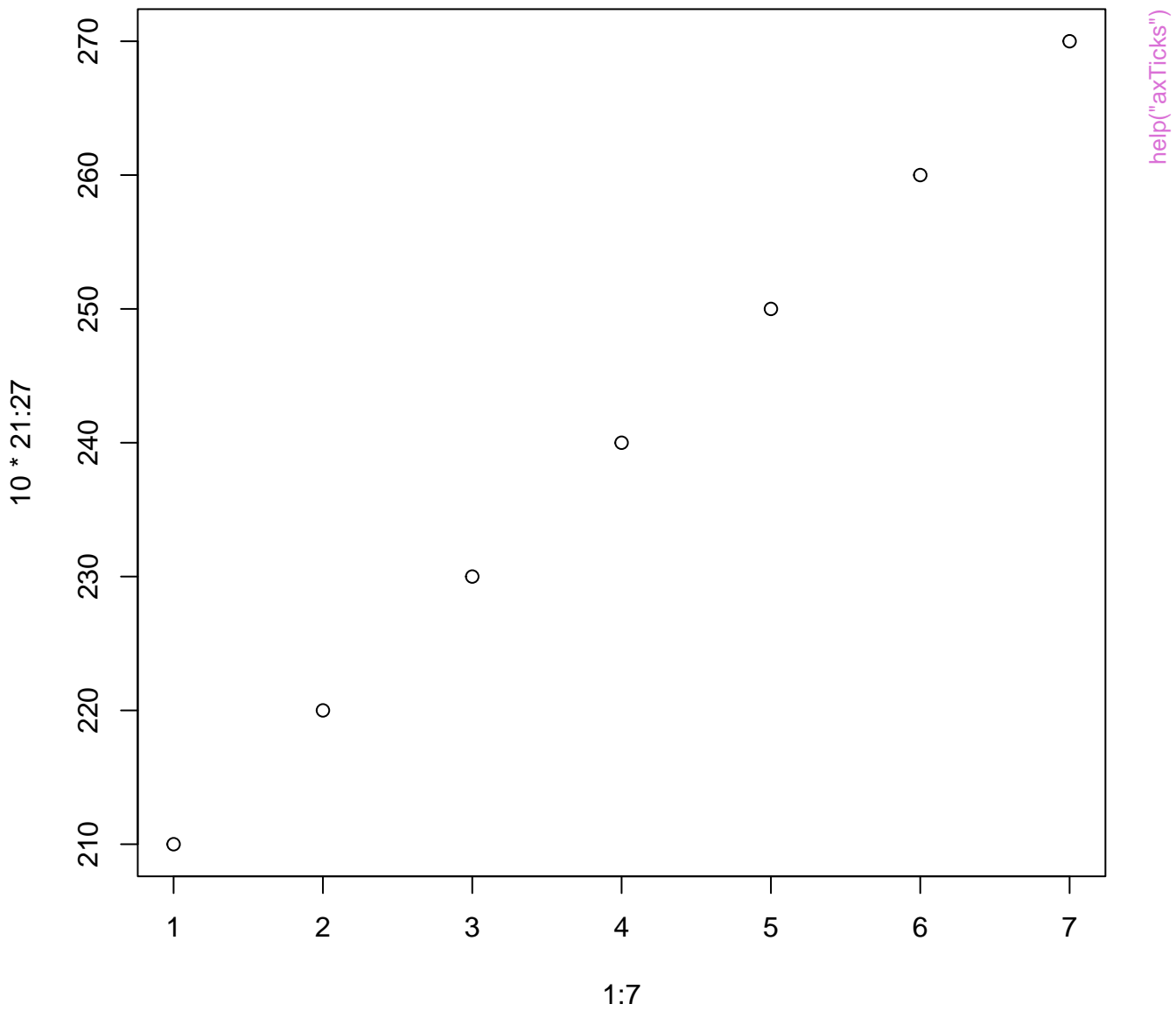


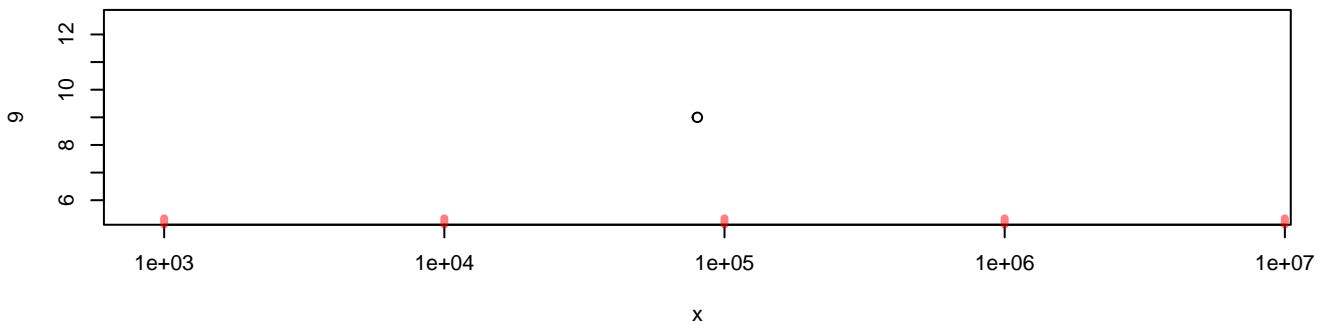
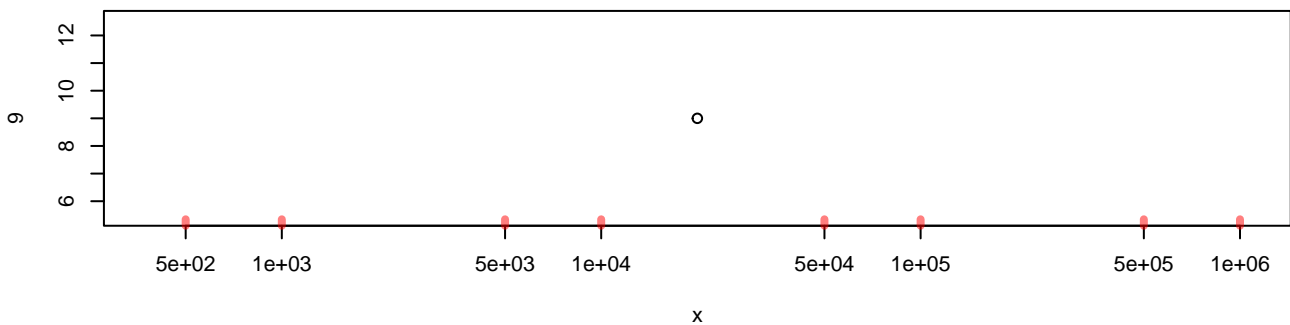
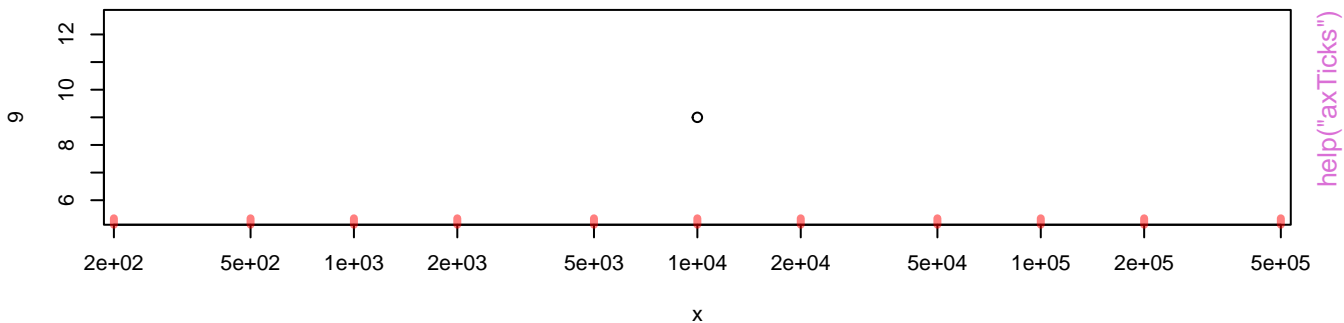
arrows(.) and segments(.)

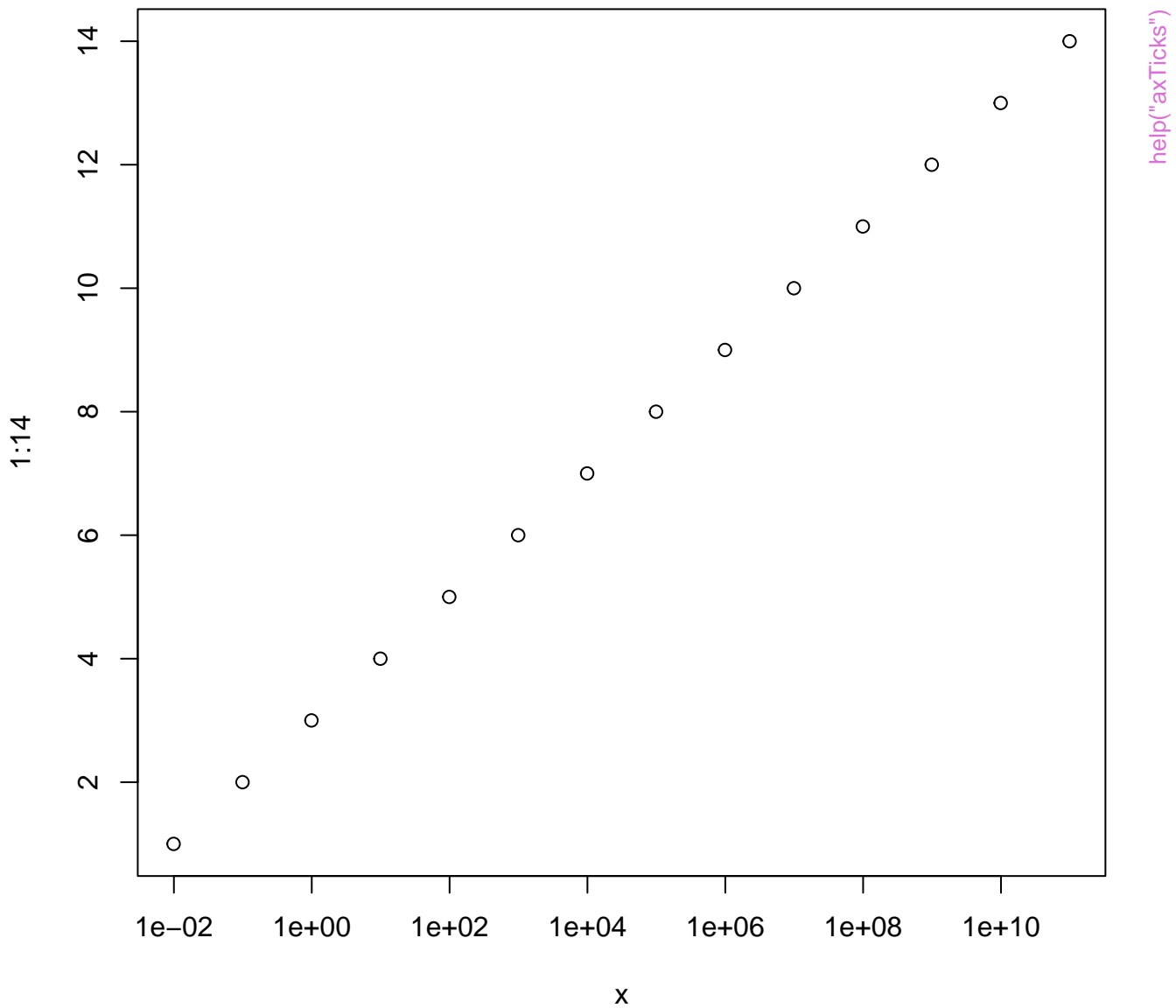


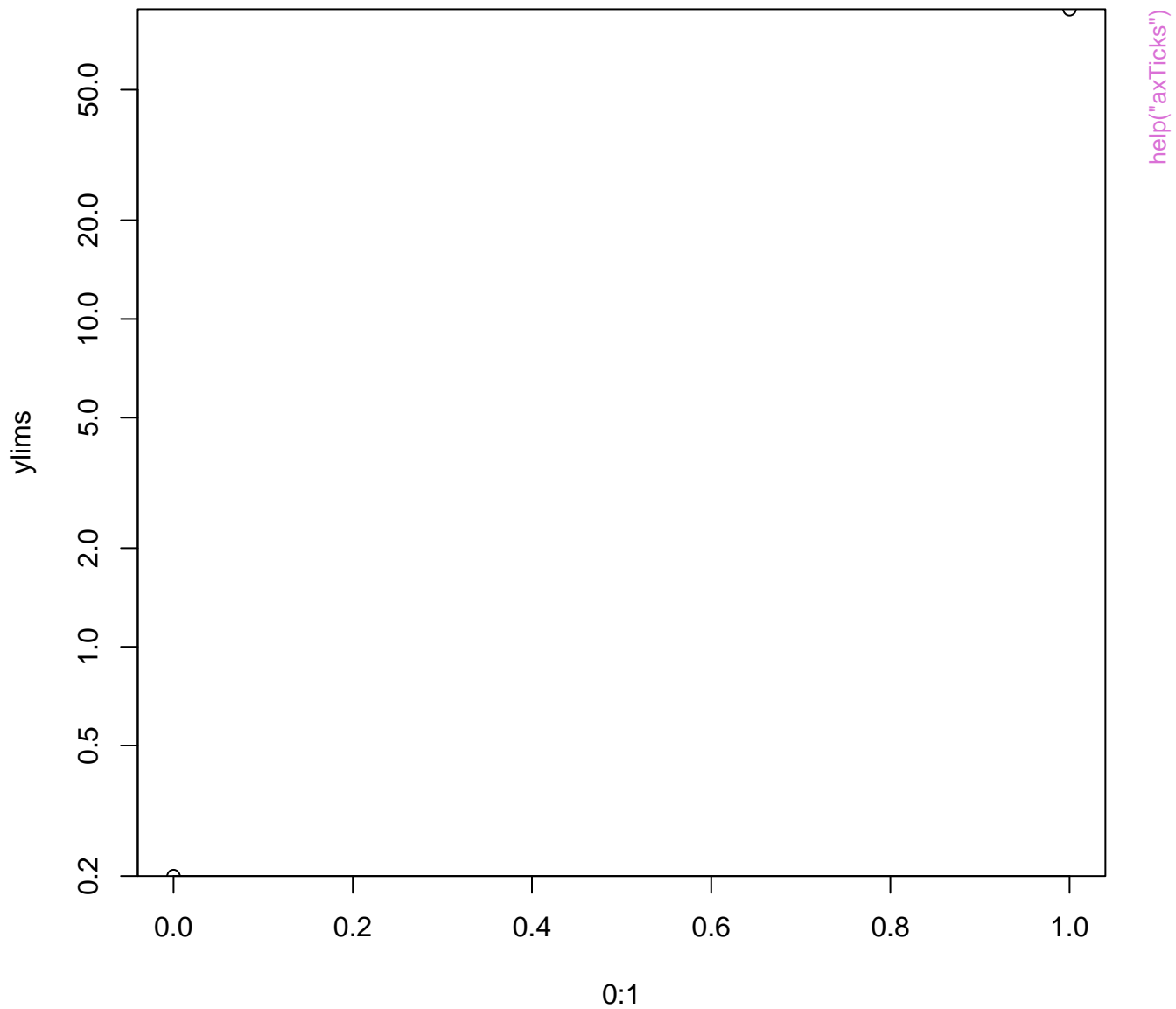
Relation between hair and eye color

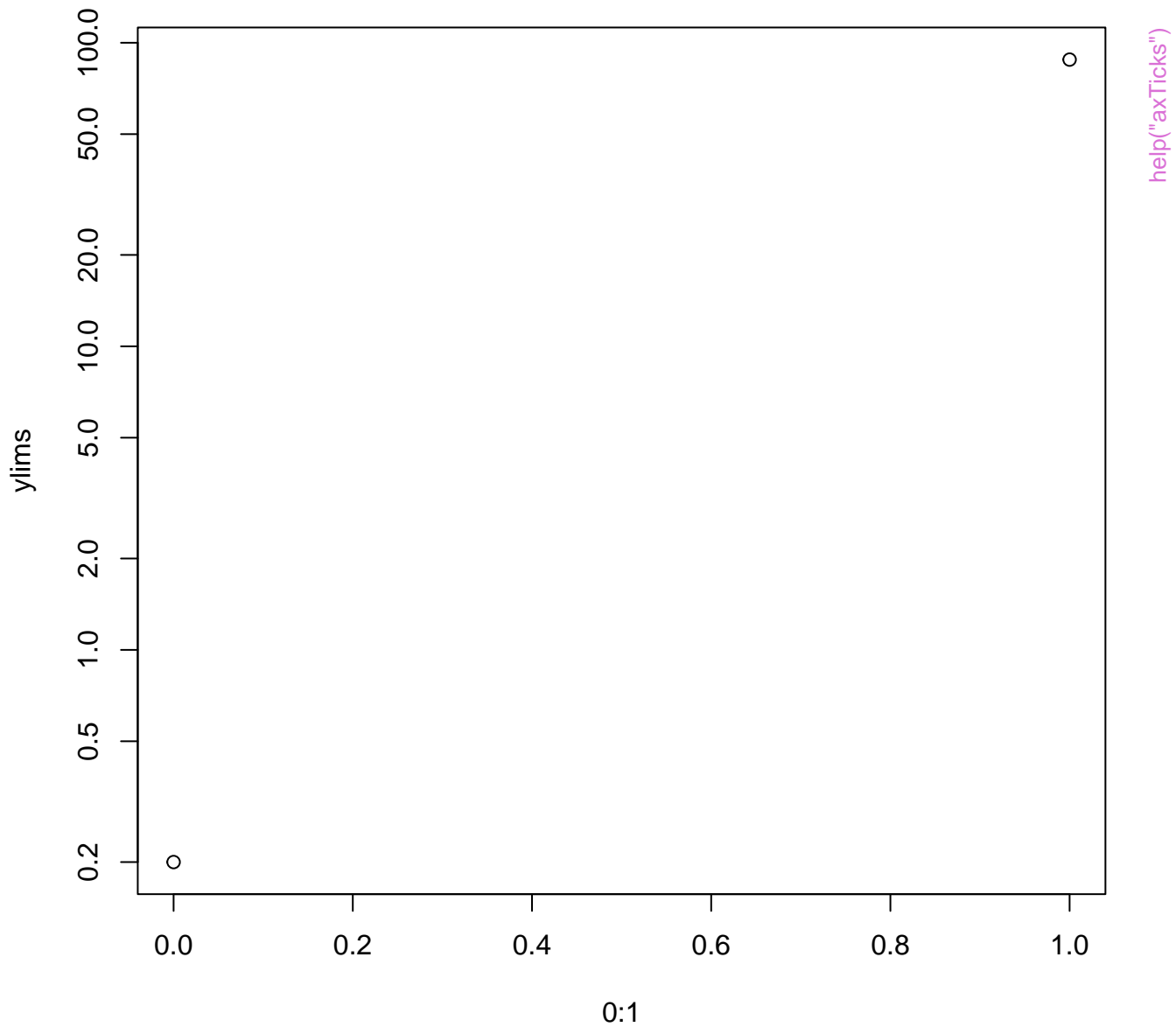


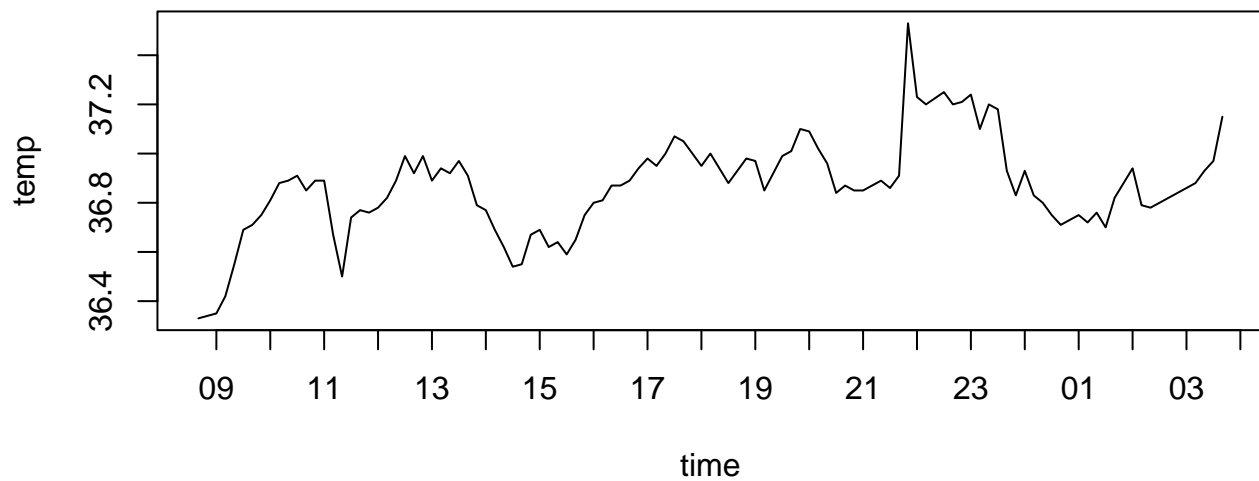
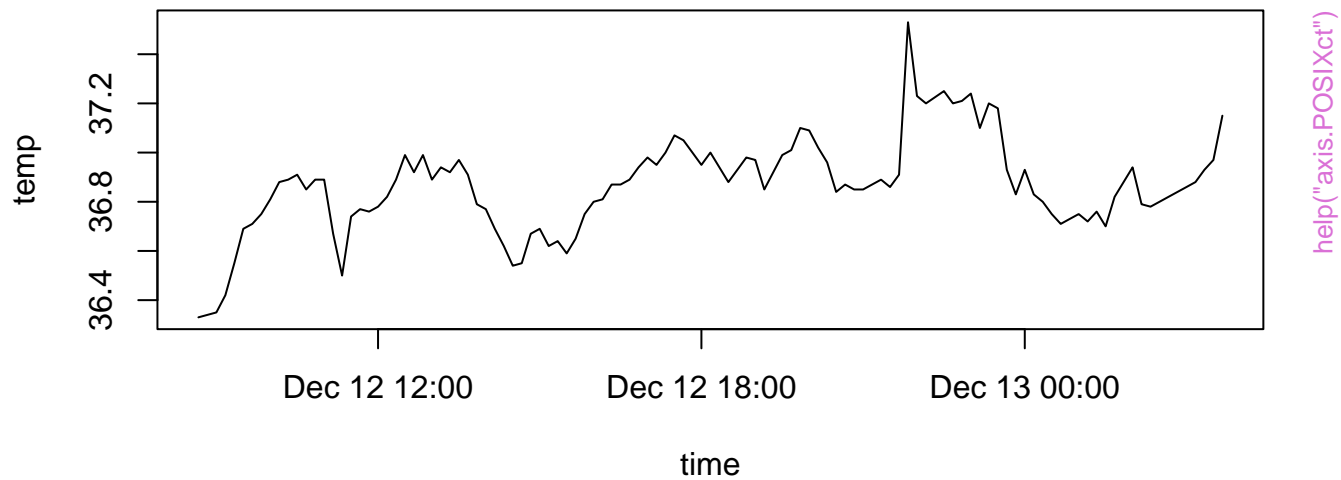


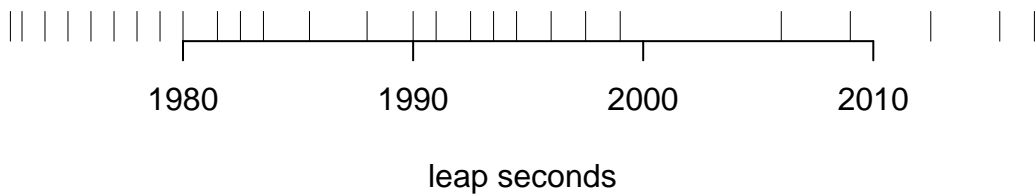


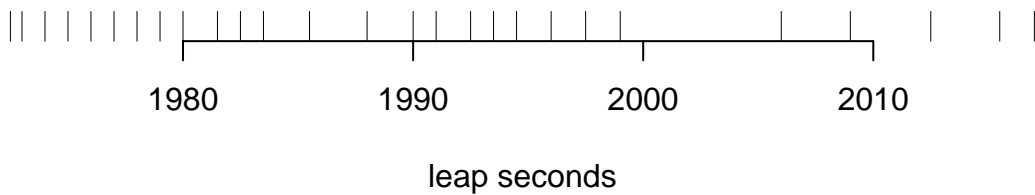


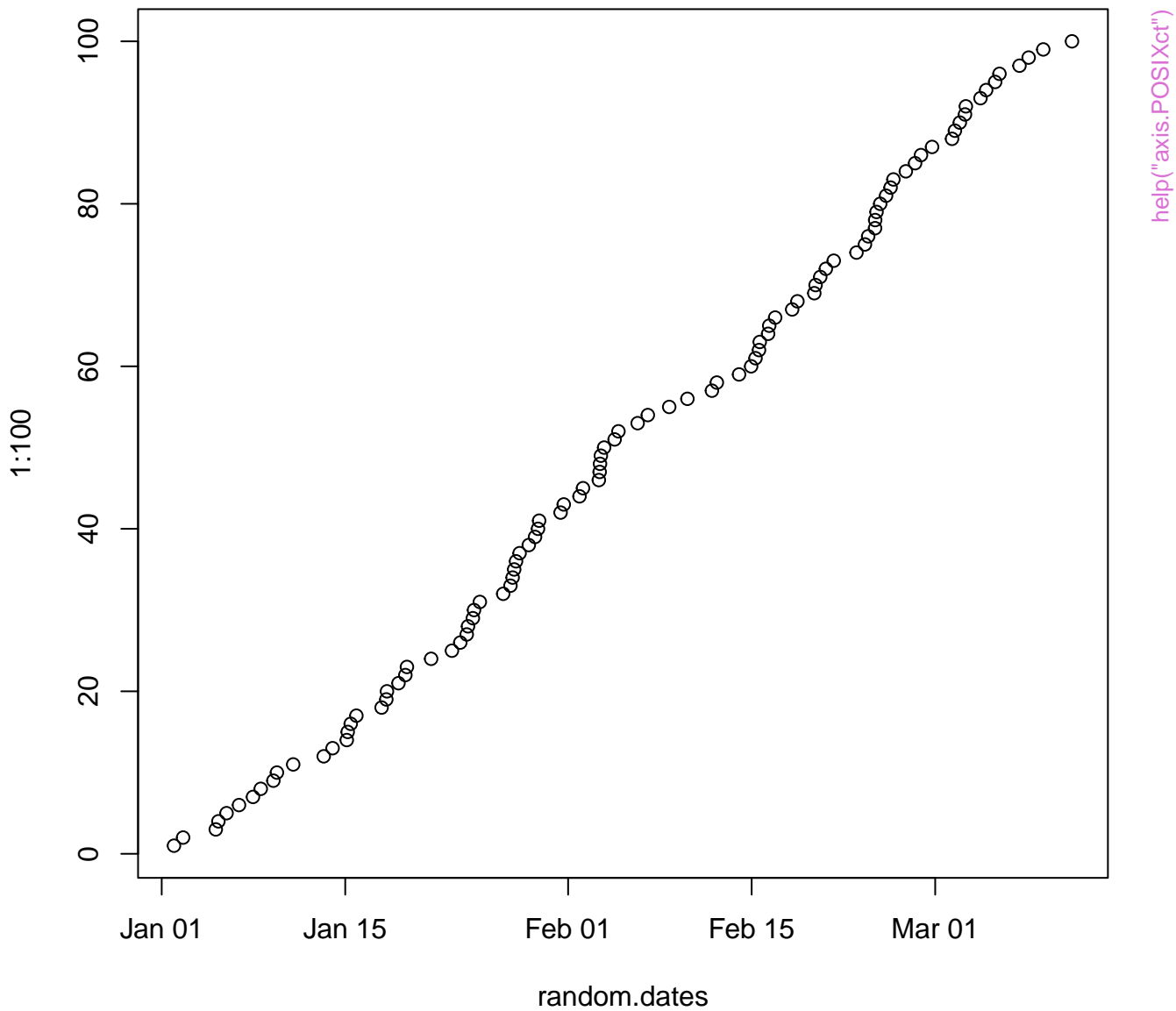


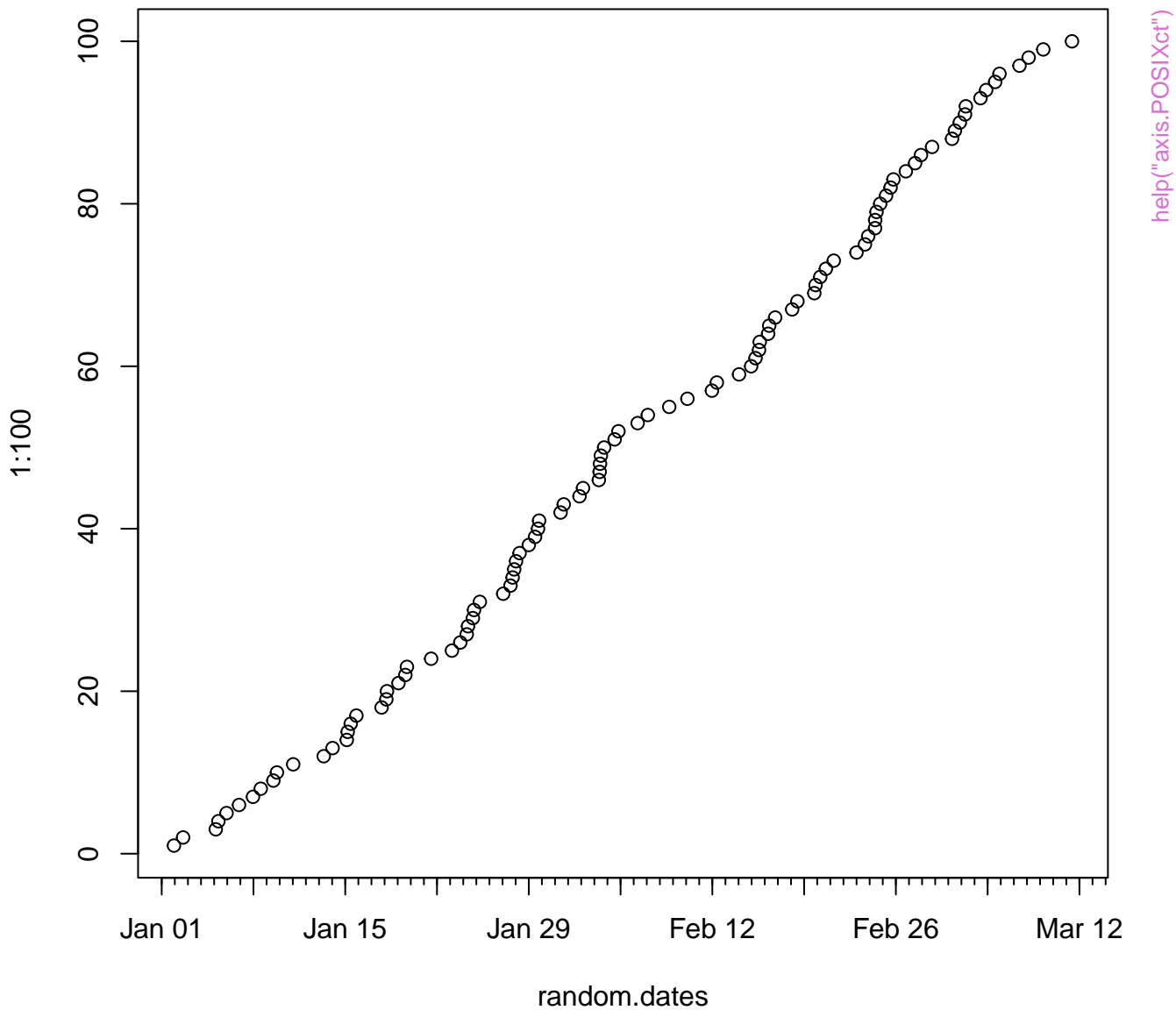


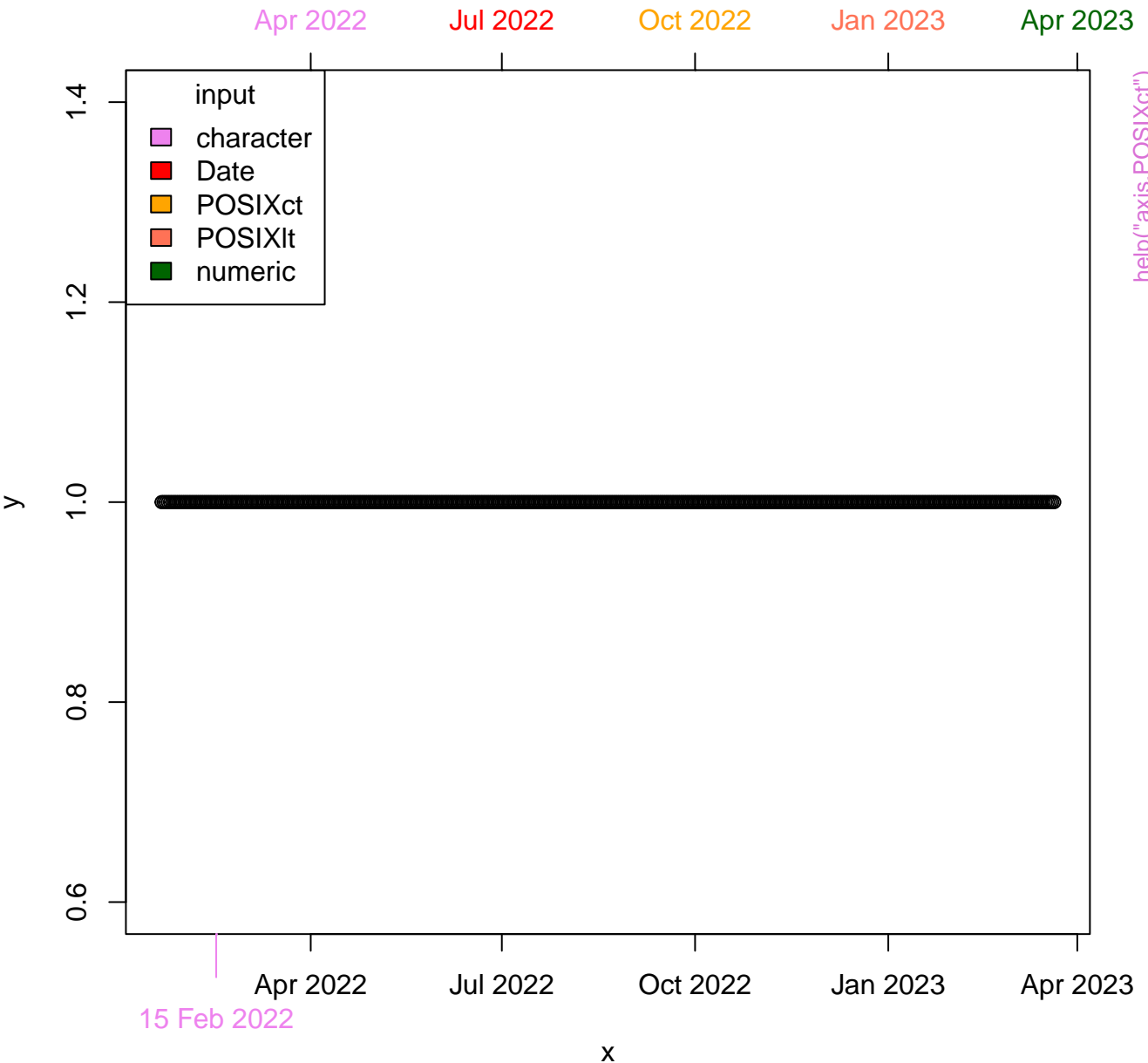


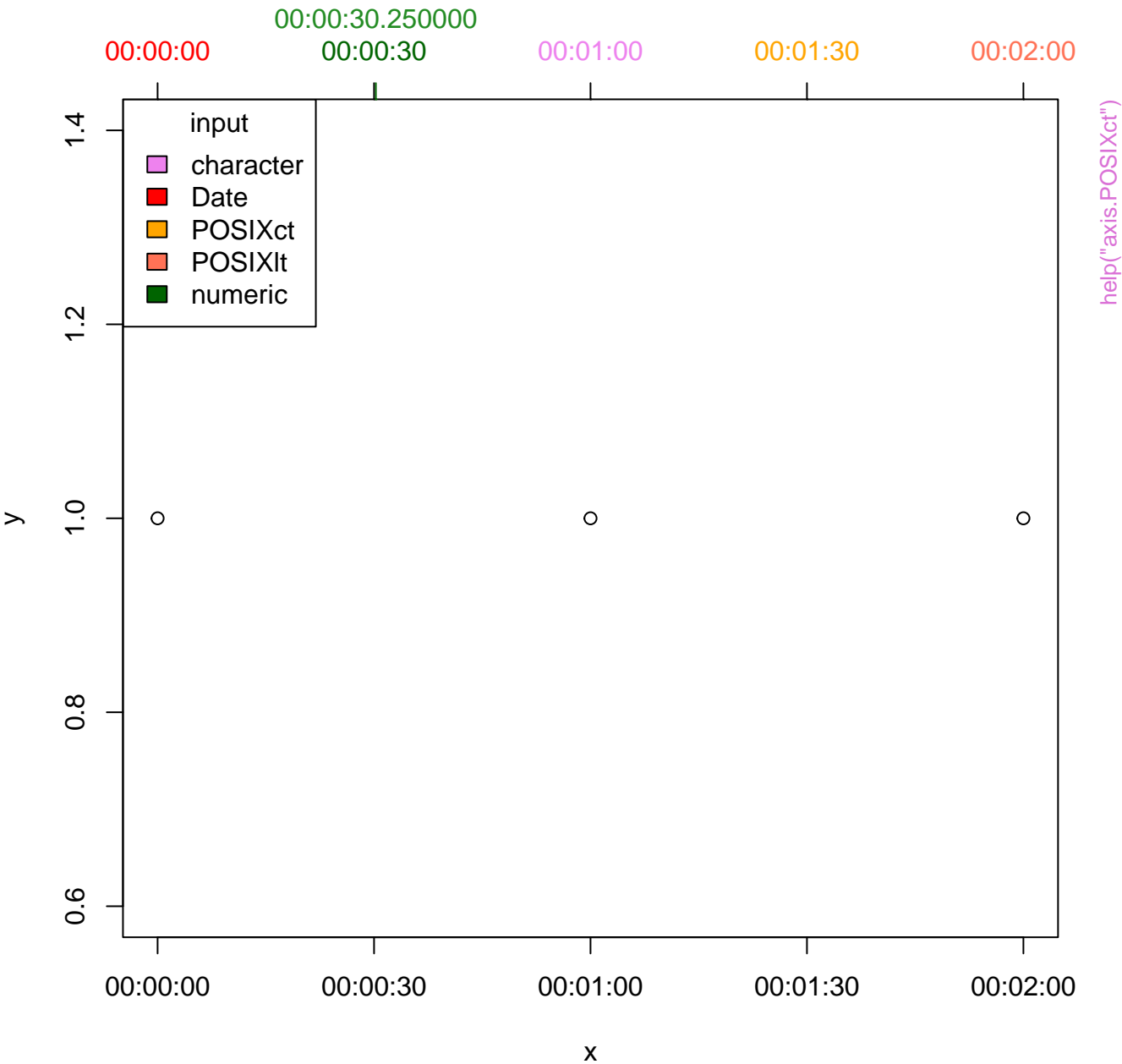












Central European Time (CET)

12:00

12:10

12:15

12:30

12:45

13:00

1.4

1.2

1.0

0.8

0.6

help("axis.POSIXct")

00:00

00:10

00:15

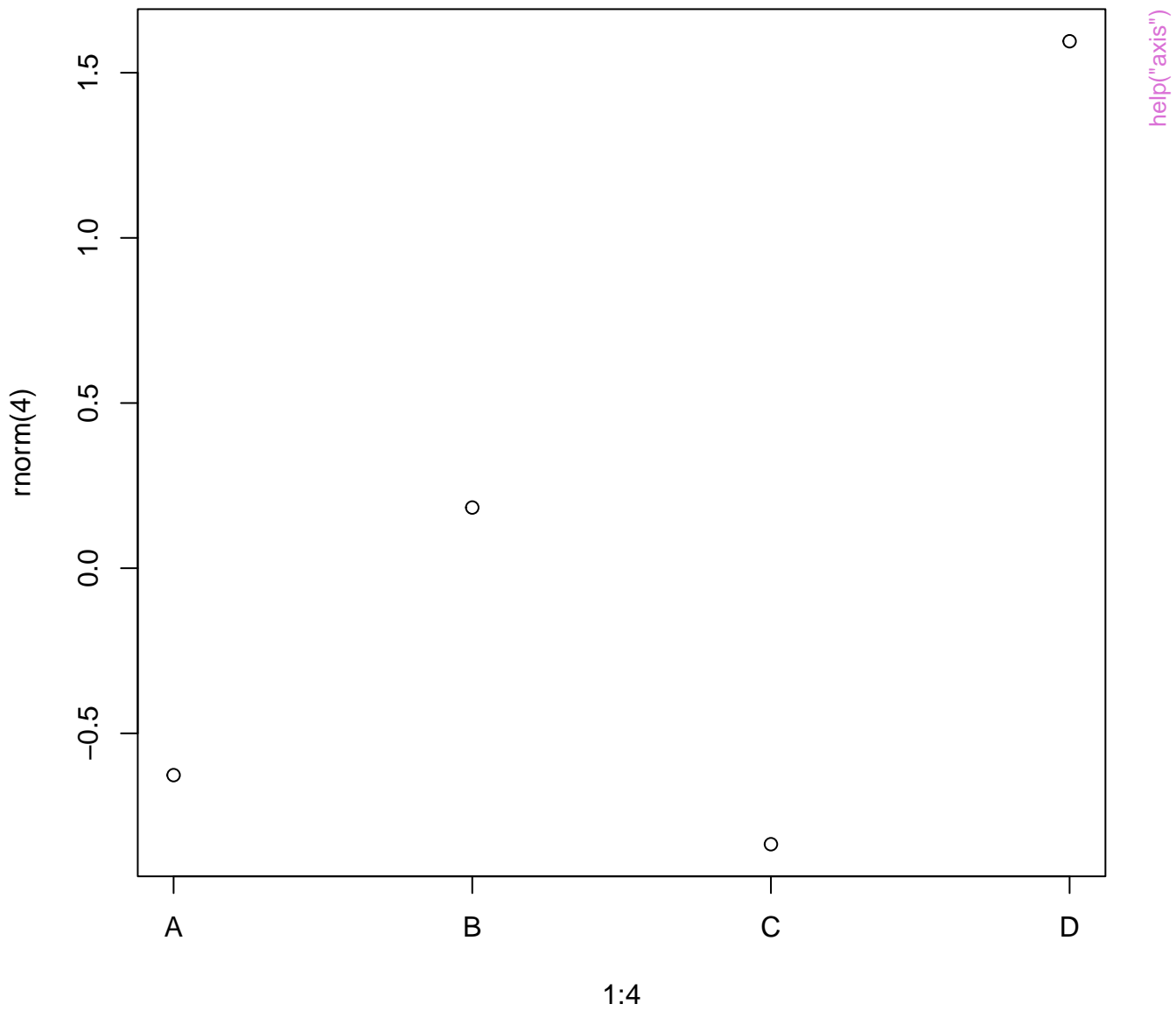
00:30

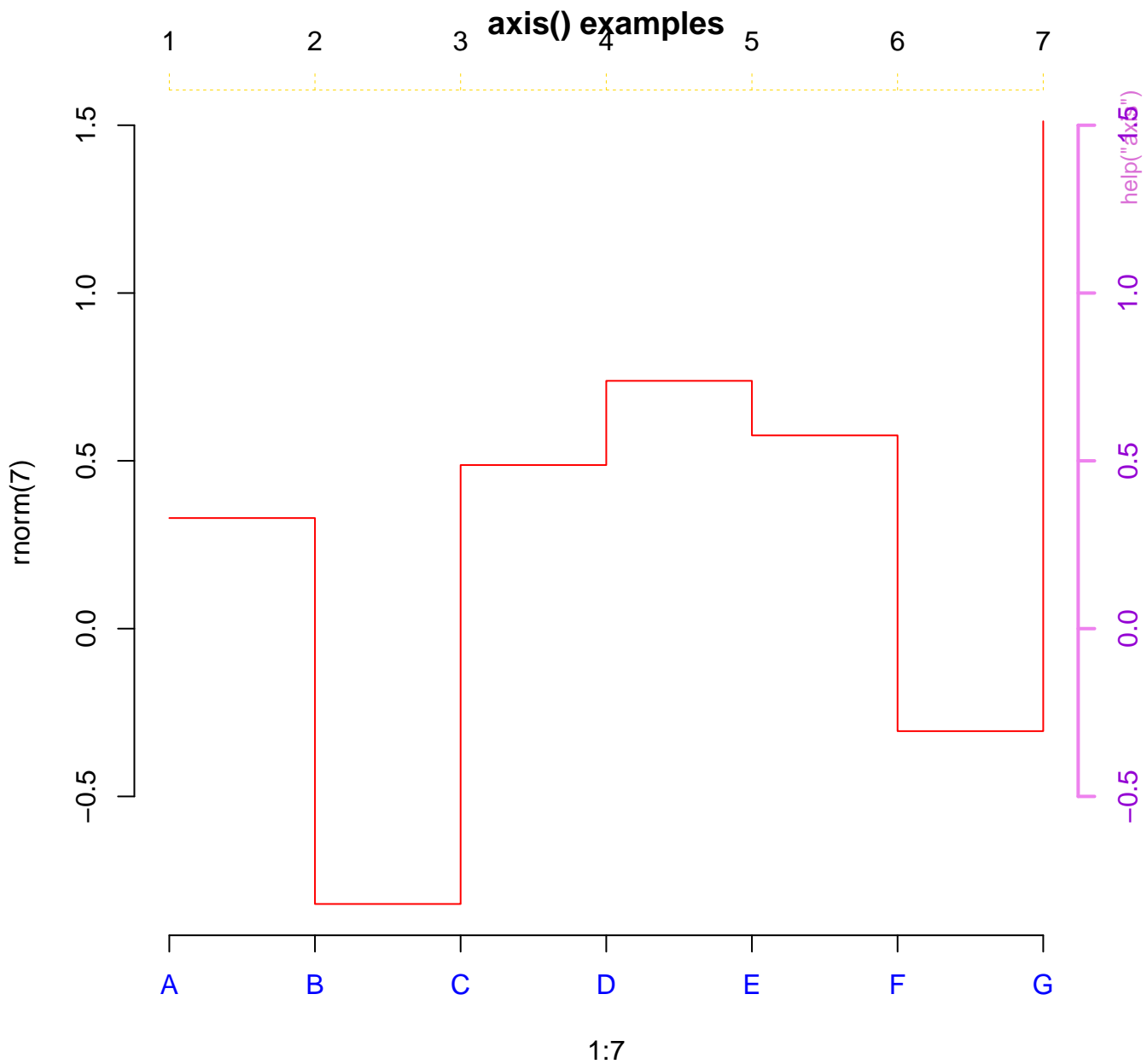
00:45

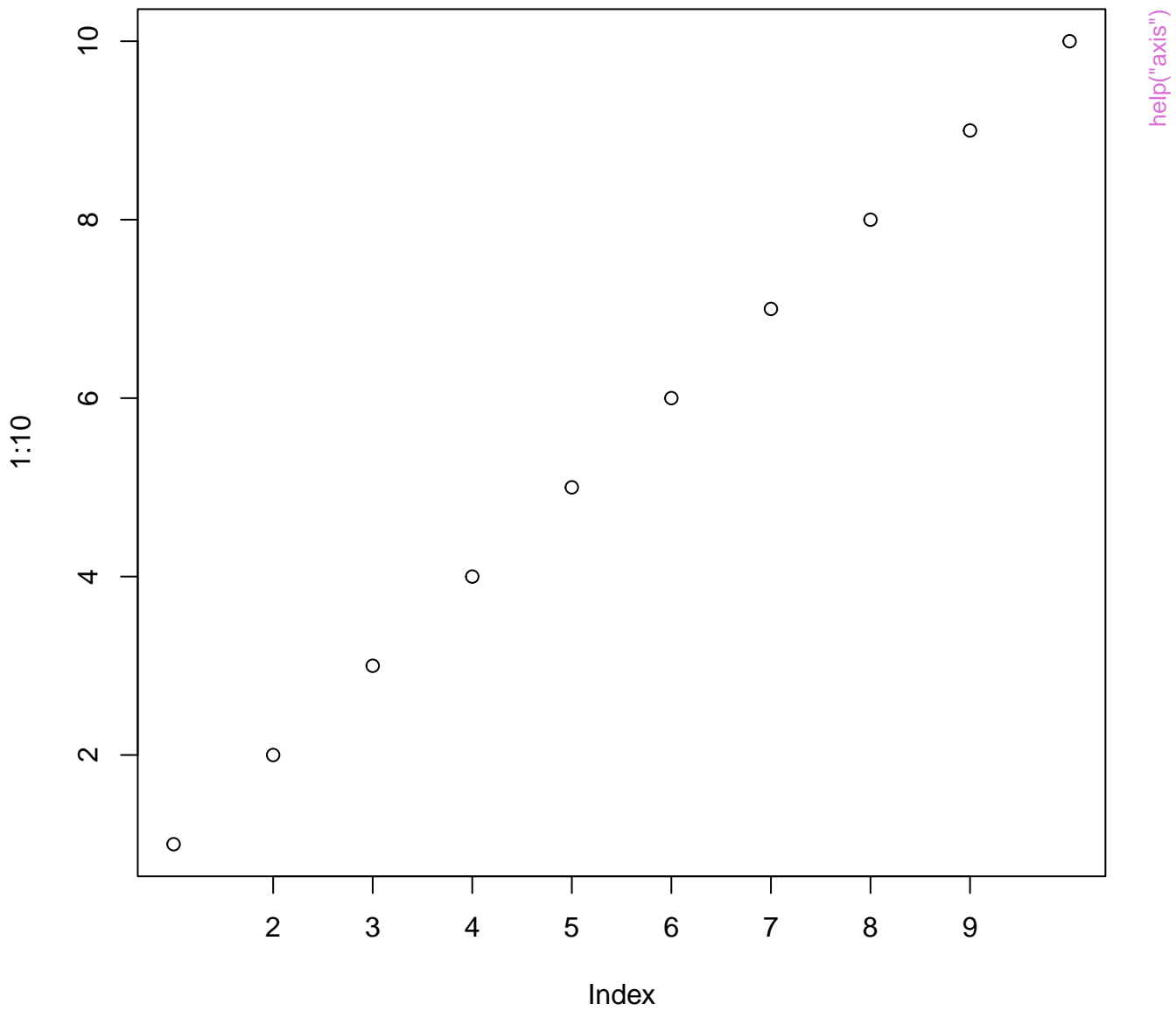
01:00

Hawaii Standard Time (HST)

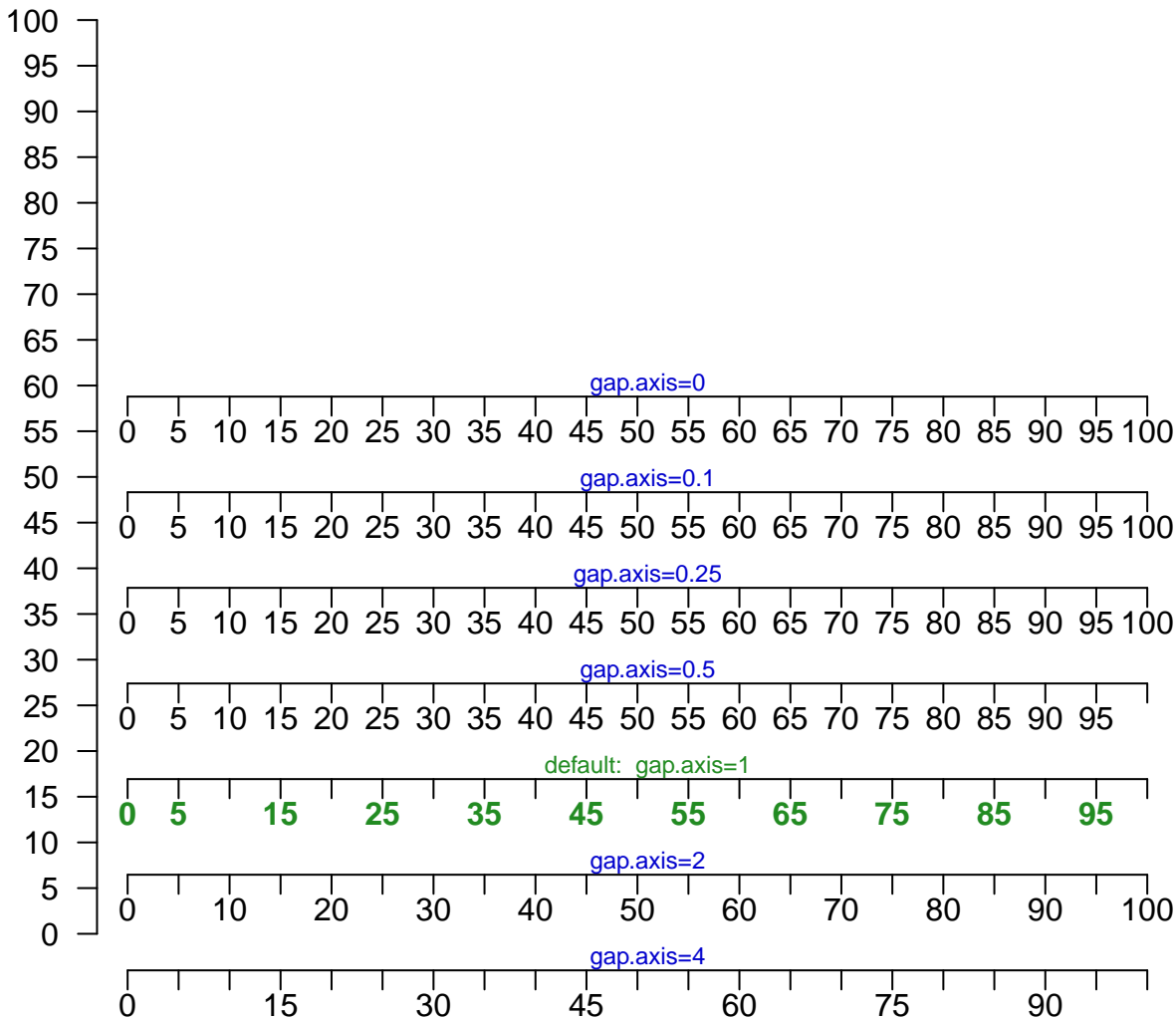
y



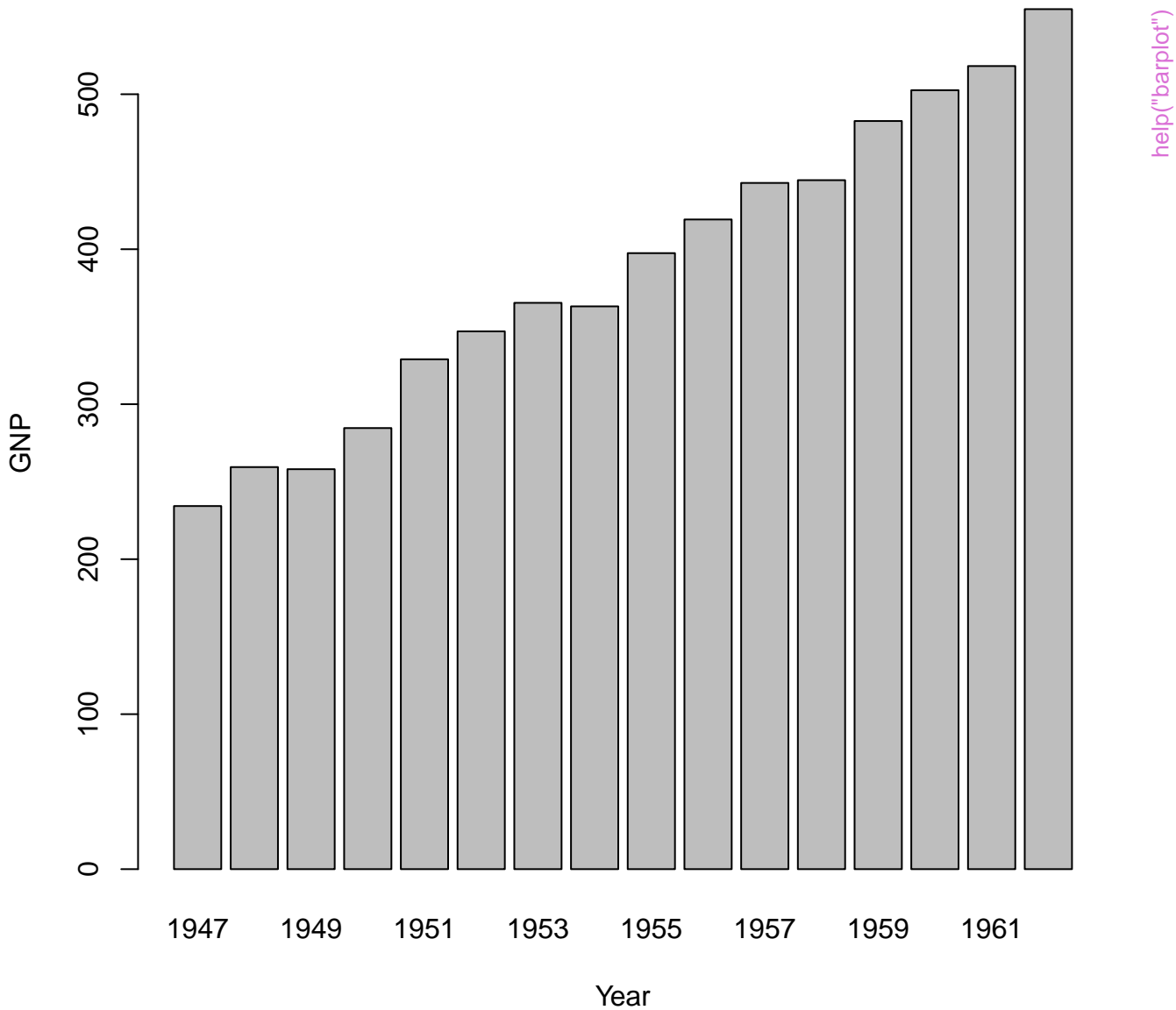


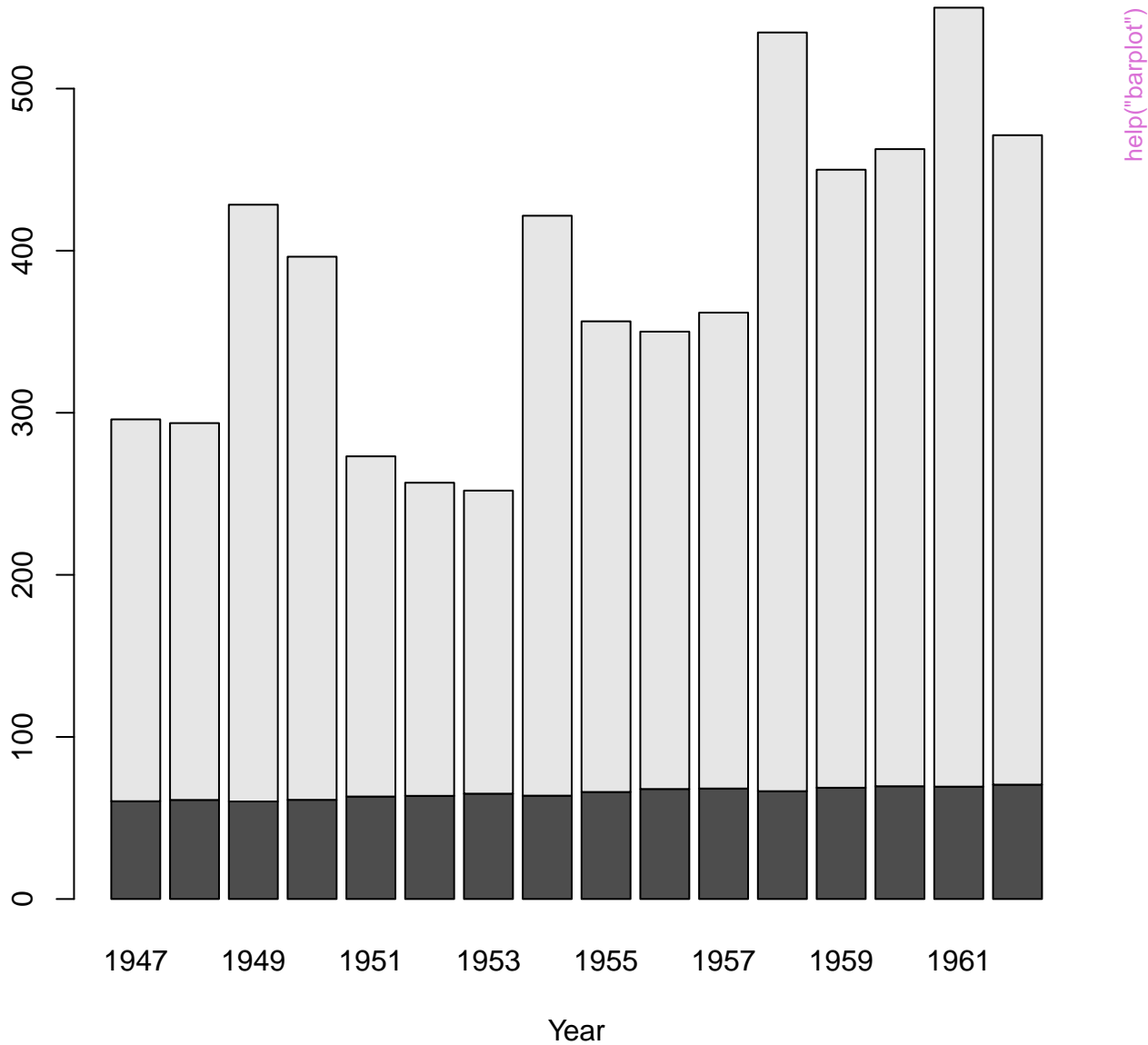


axis(1, ..., gap.axis = f), $f \geq 0$

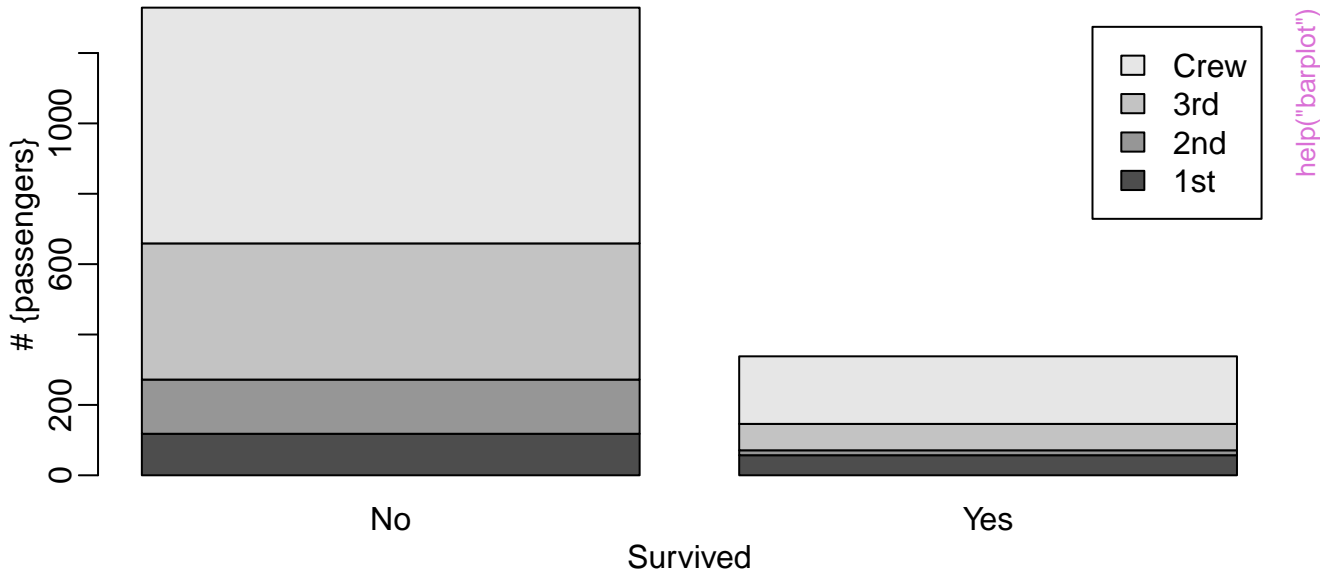


help("axis")

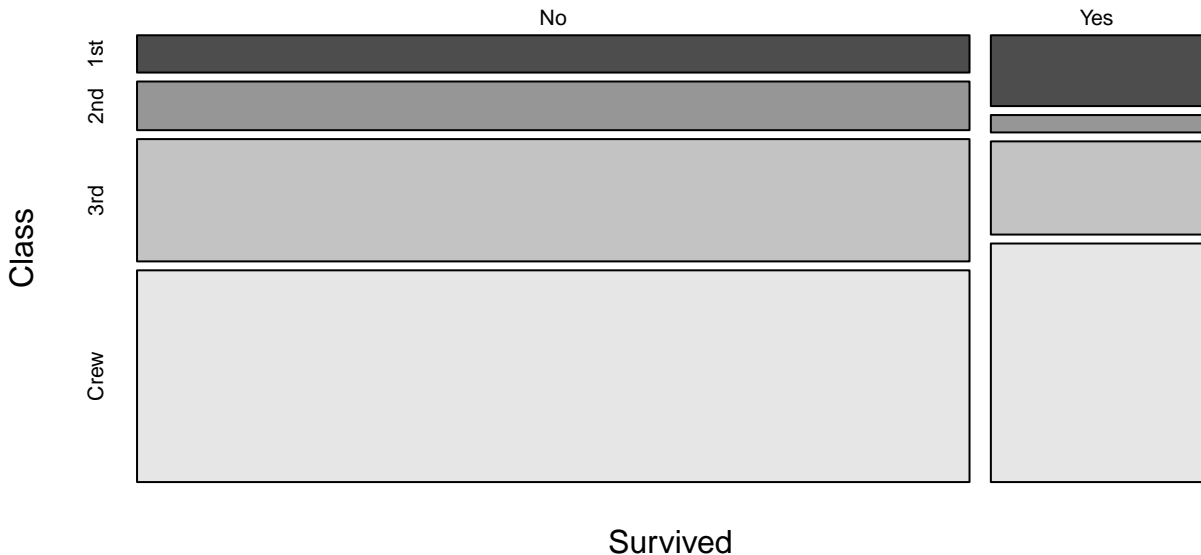


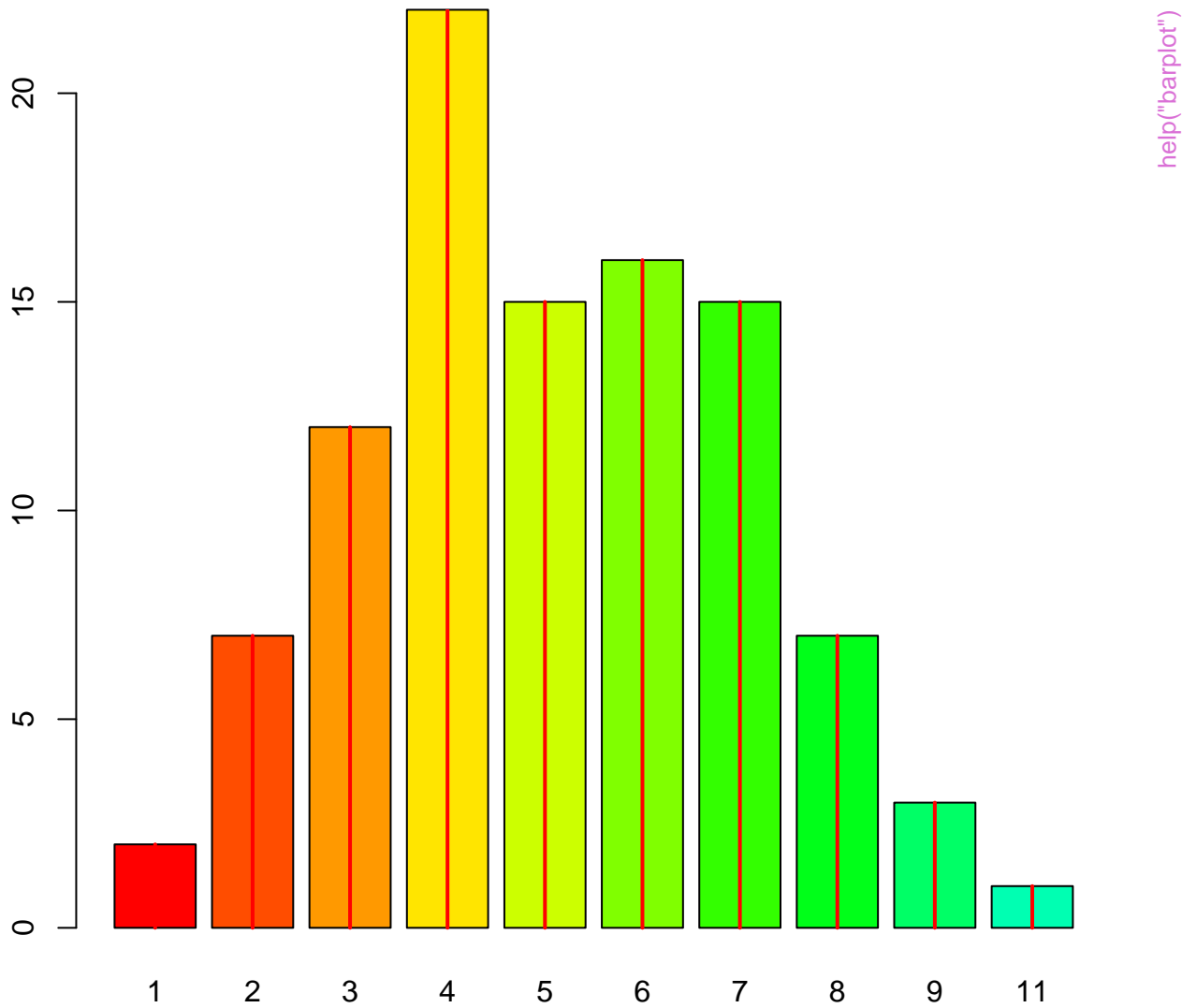


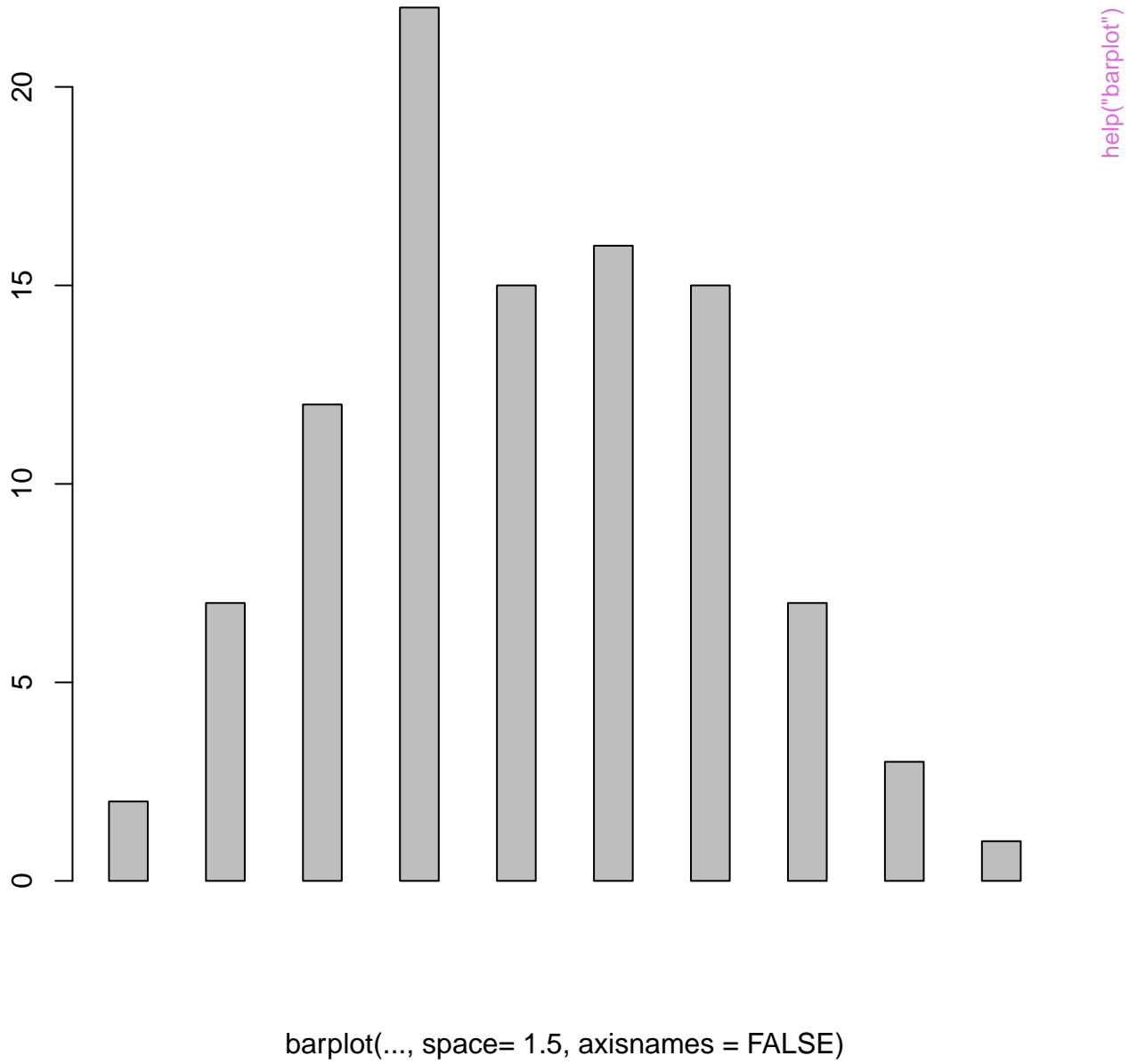
barplot(Freq ~ Class + Survived, *)

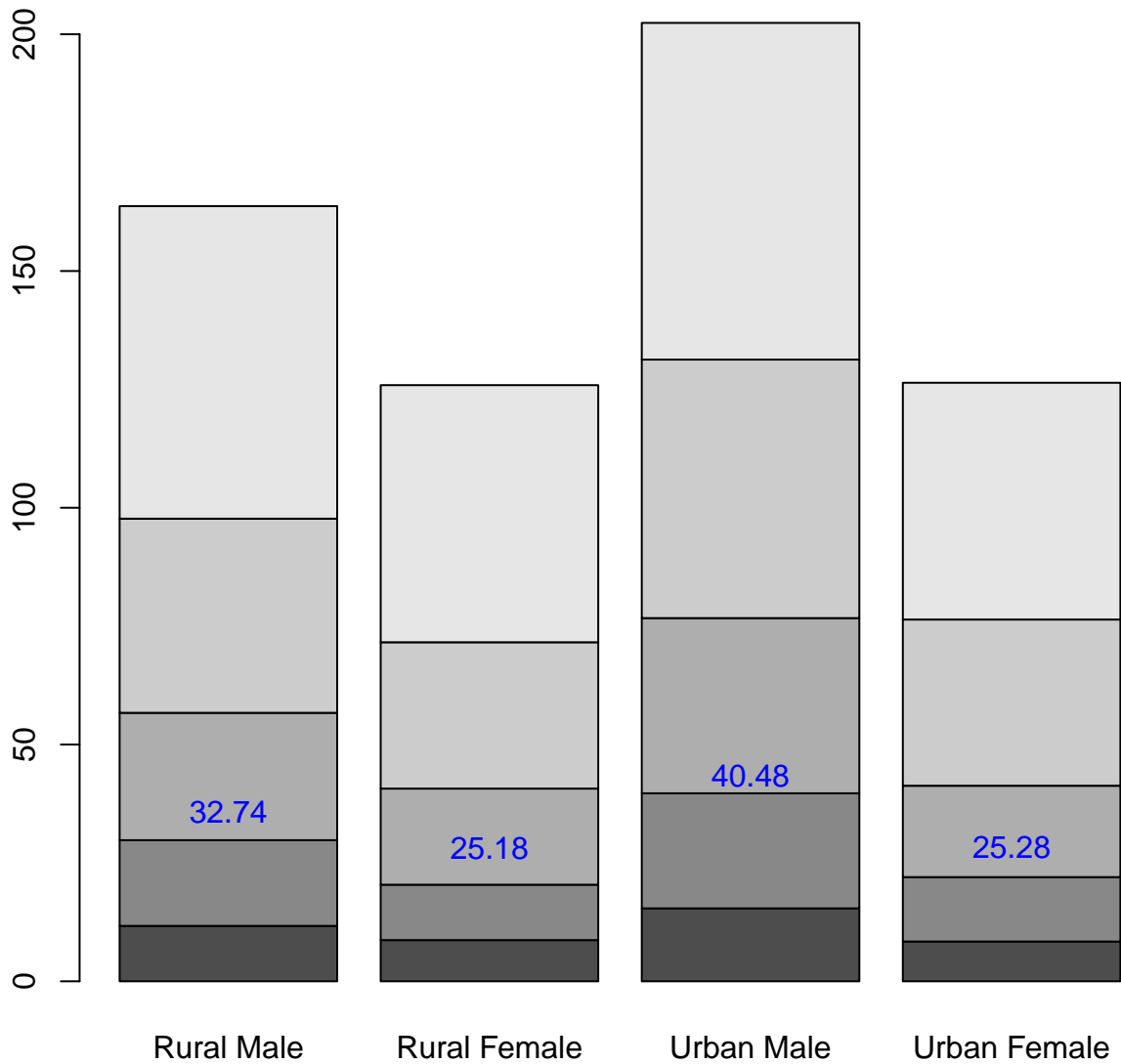


mosaicplot(Freq ~ Class + Survived, *)



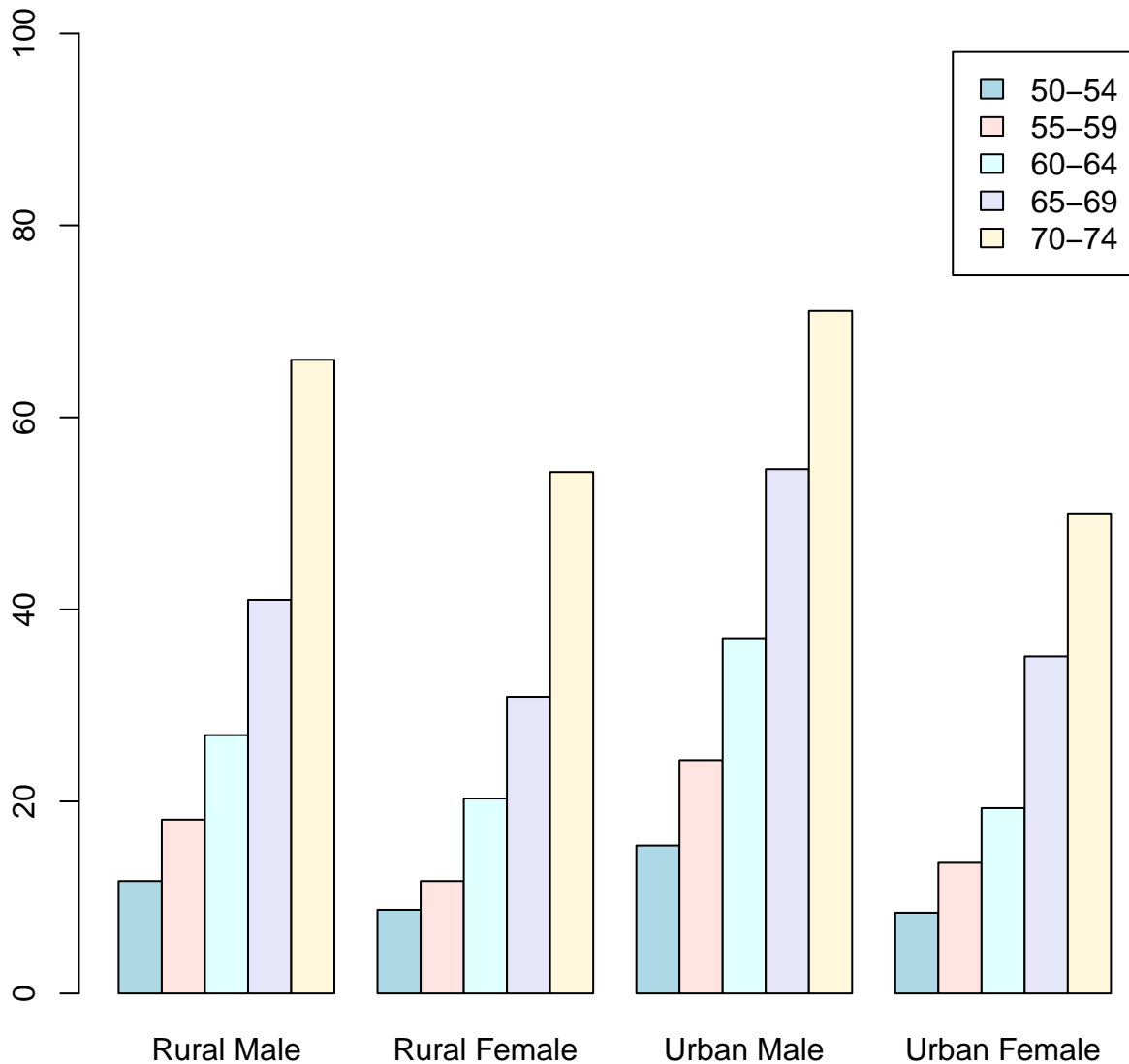






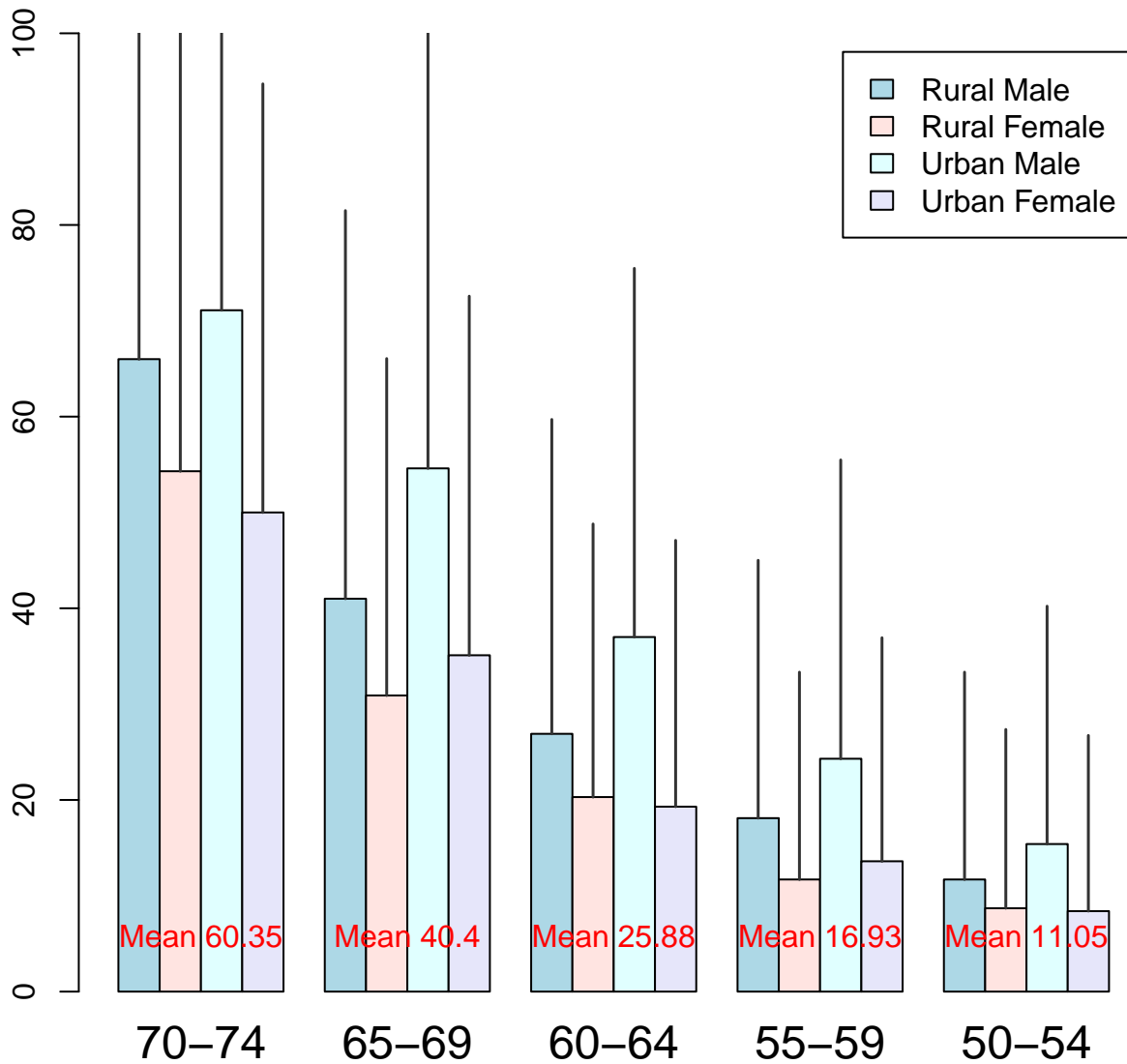
help("barplot")

Death Rates in Virginia



help("barplot")

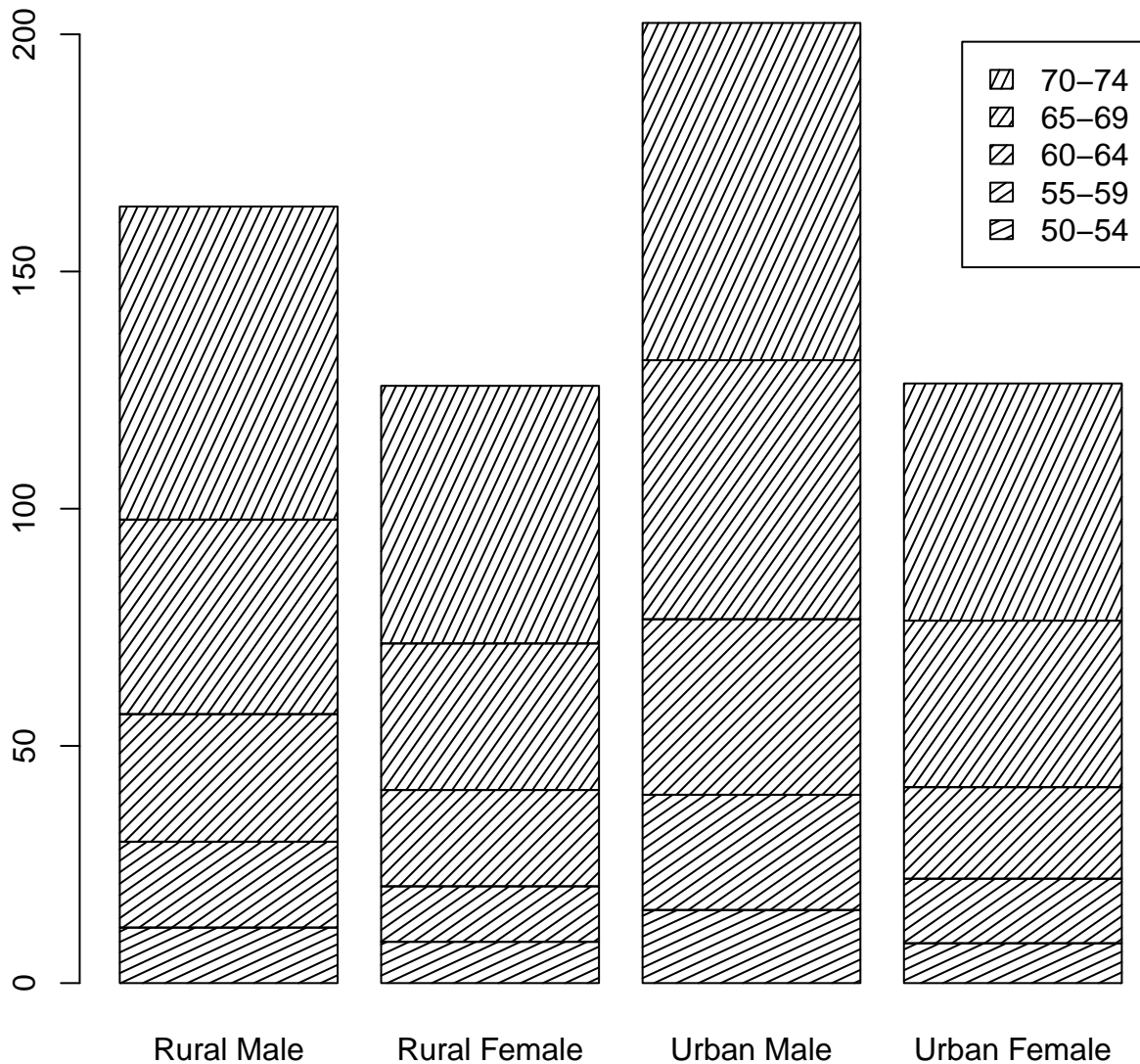
Death Rates in Virginia



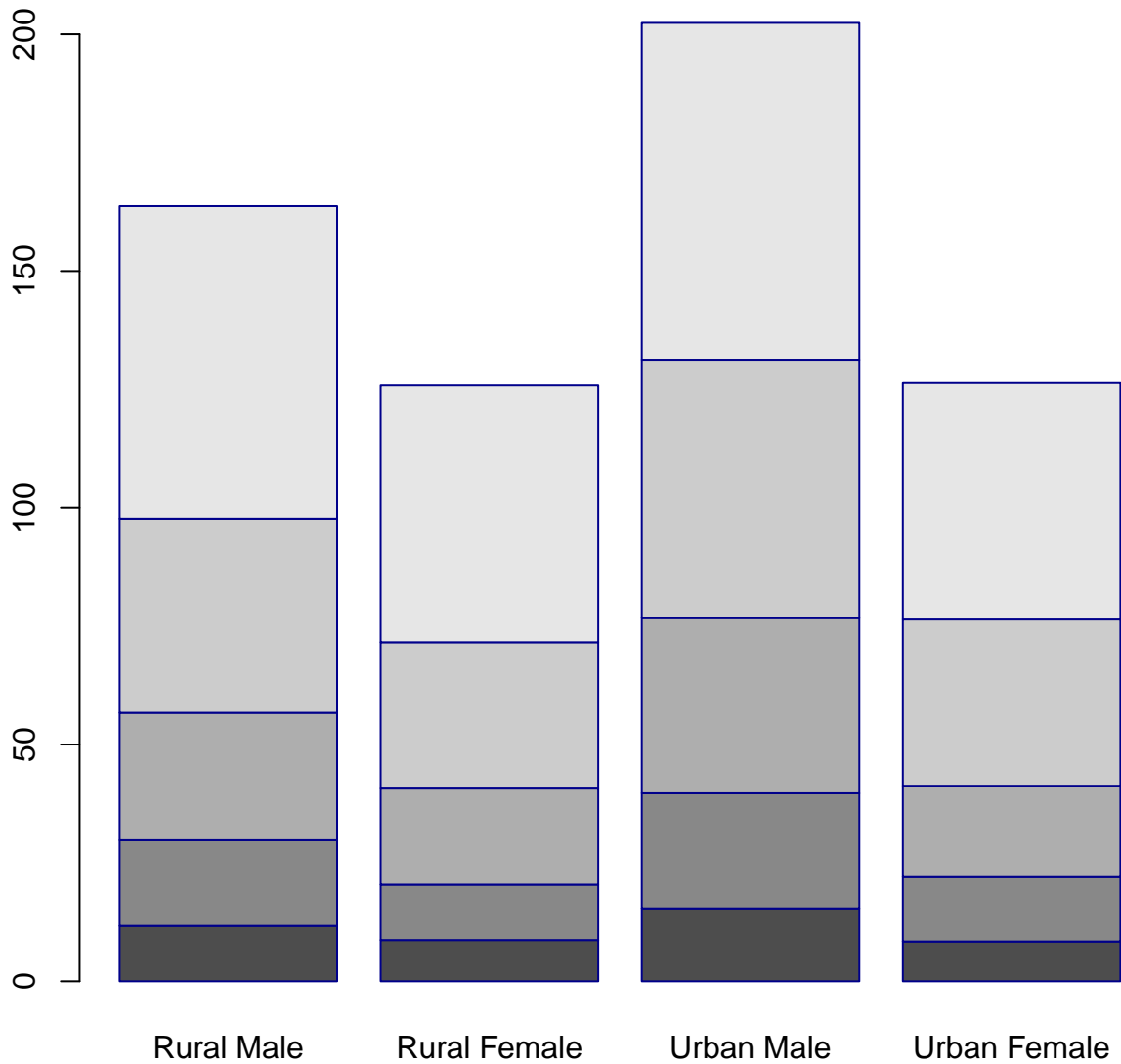
Faked upper 2*sigma error bars

help("barplot")

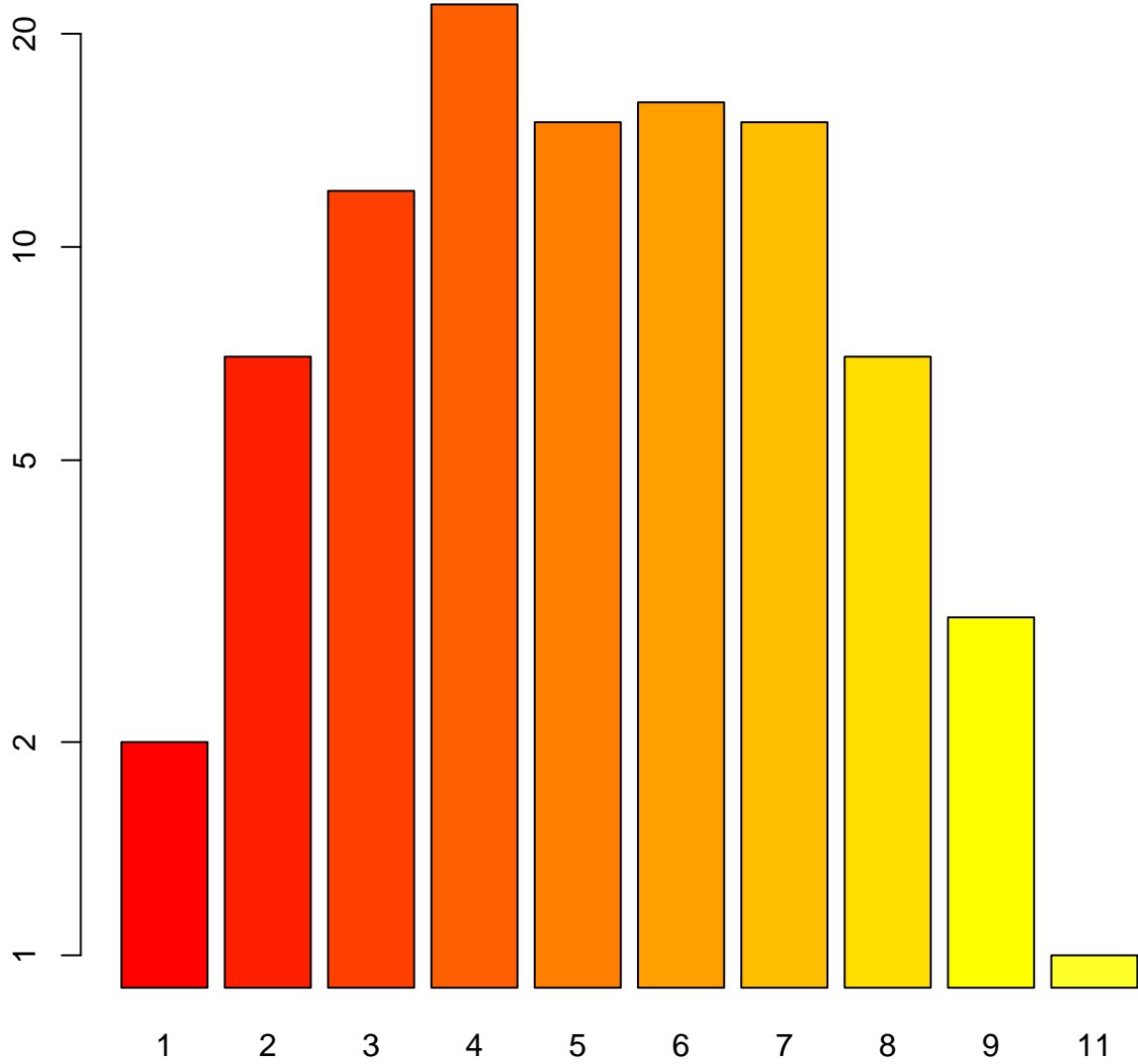
Death Rates in Virginia



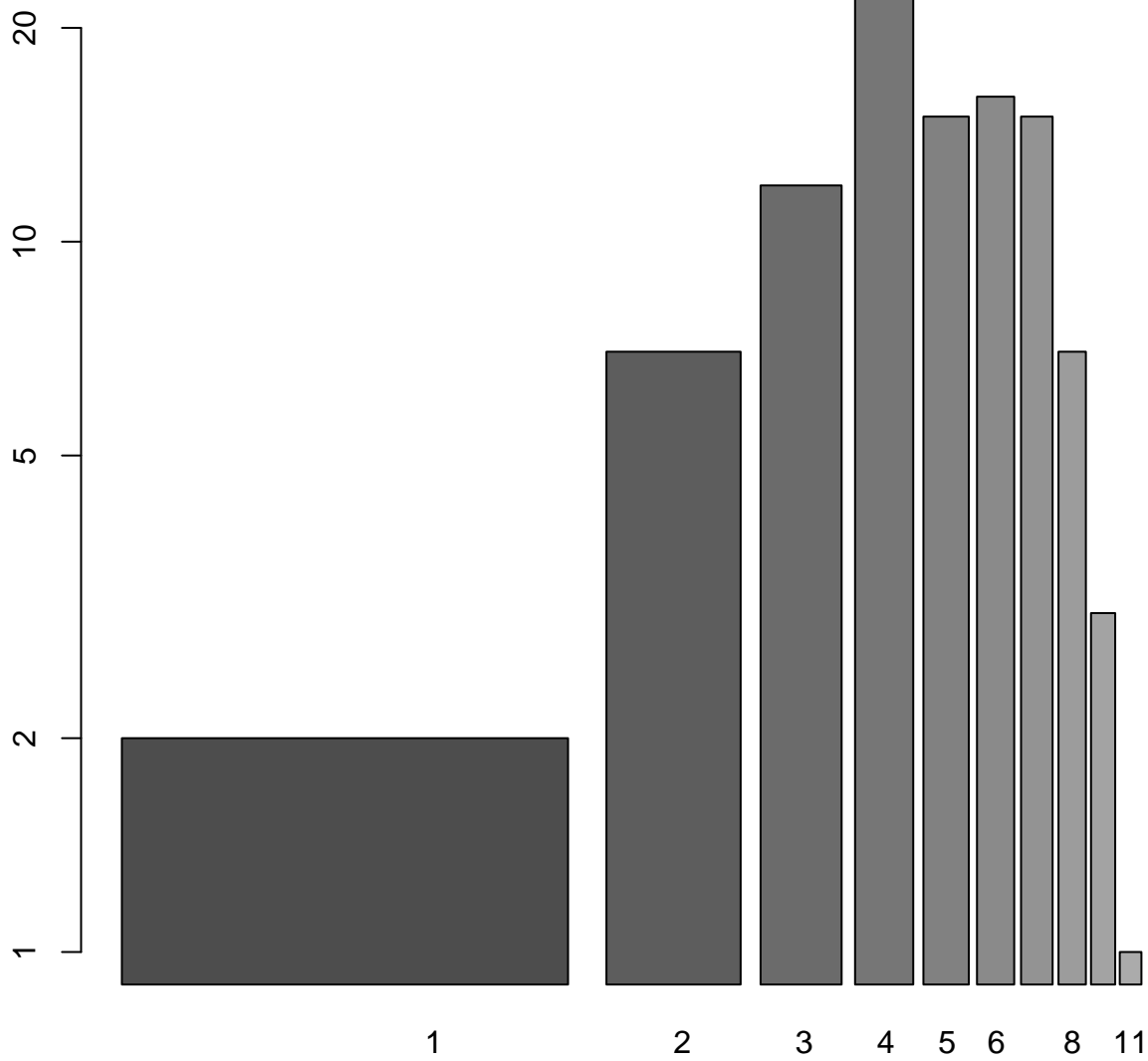
help("barplot")



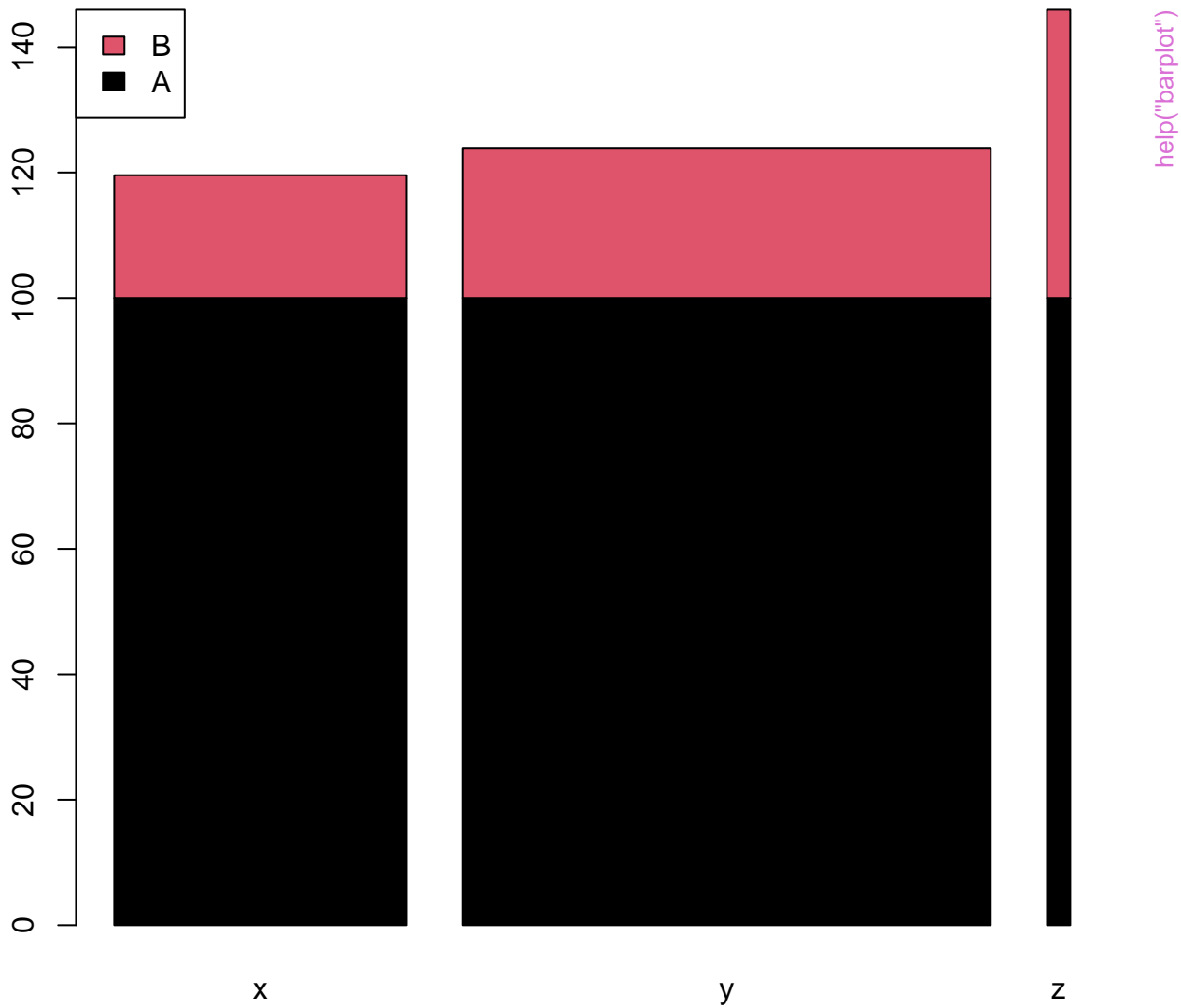
help("barplot")



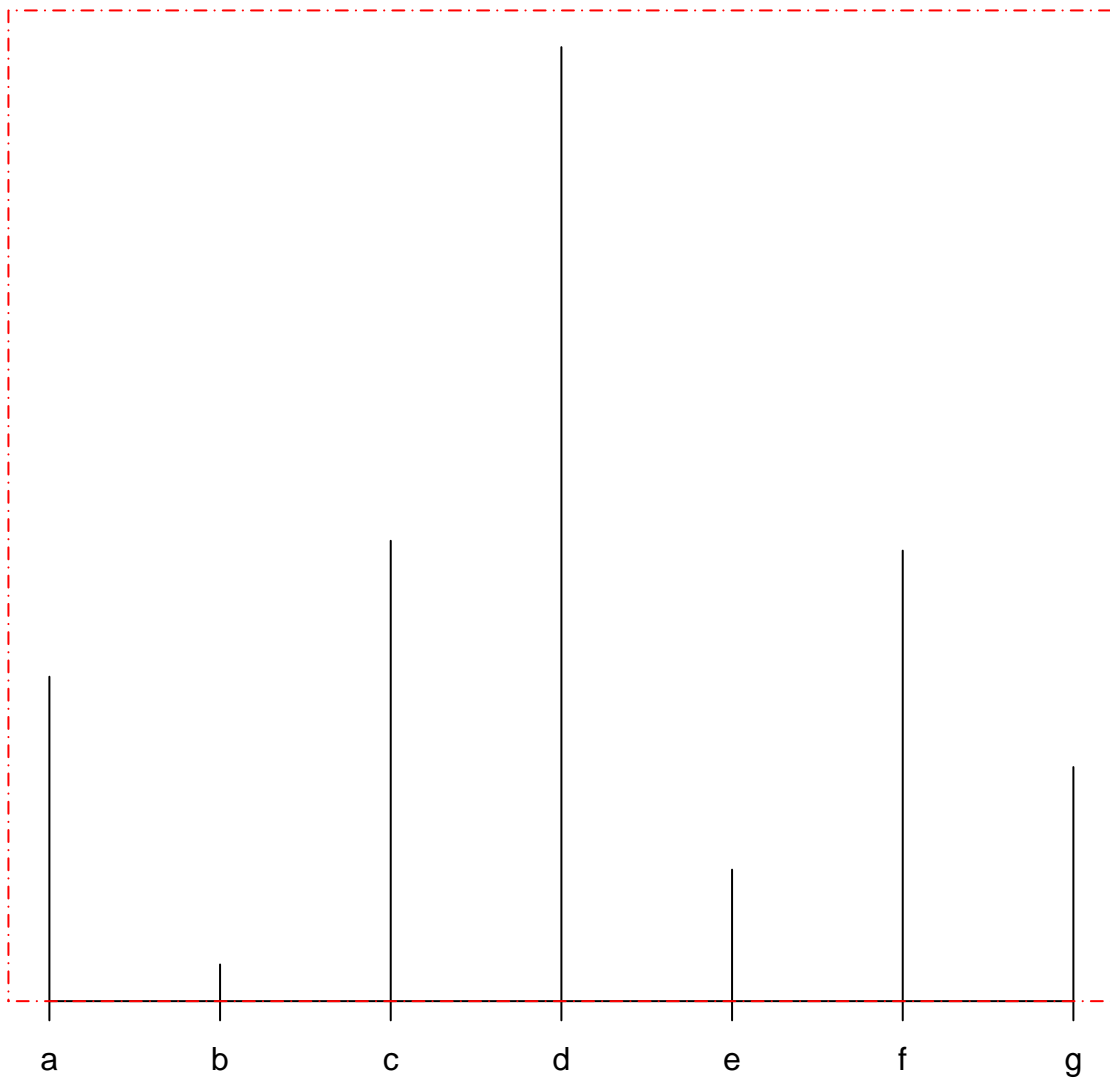
`help("barplot")`



help("barplot")

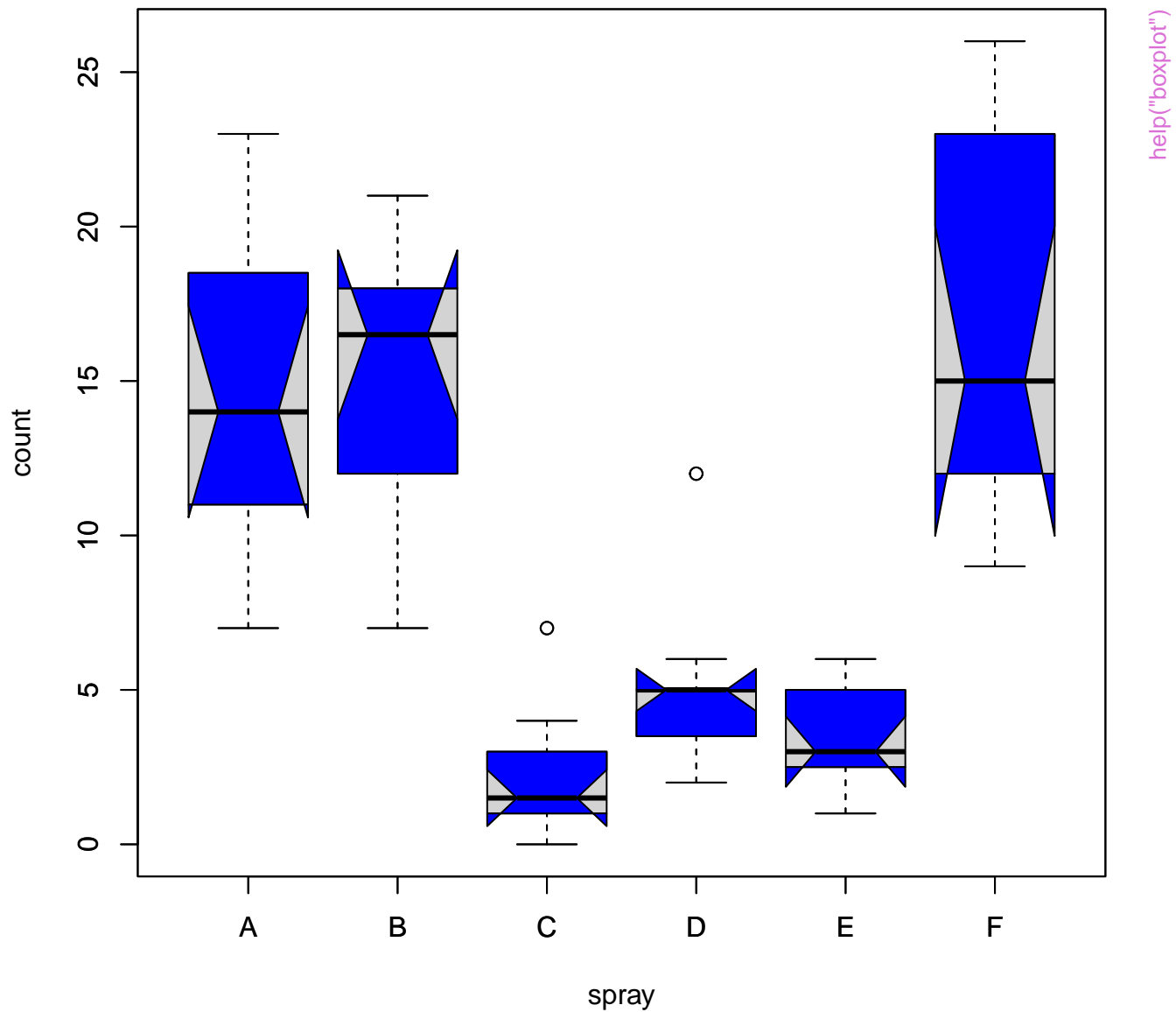


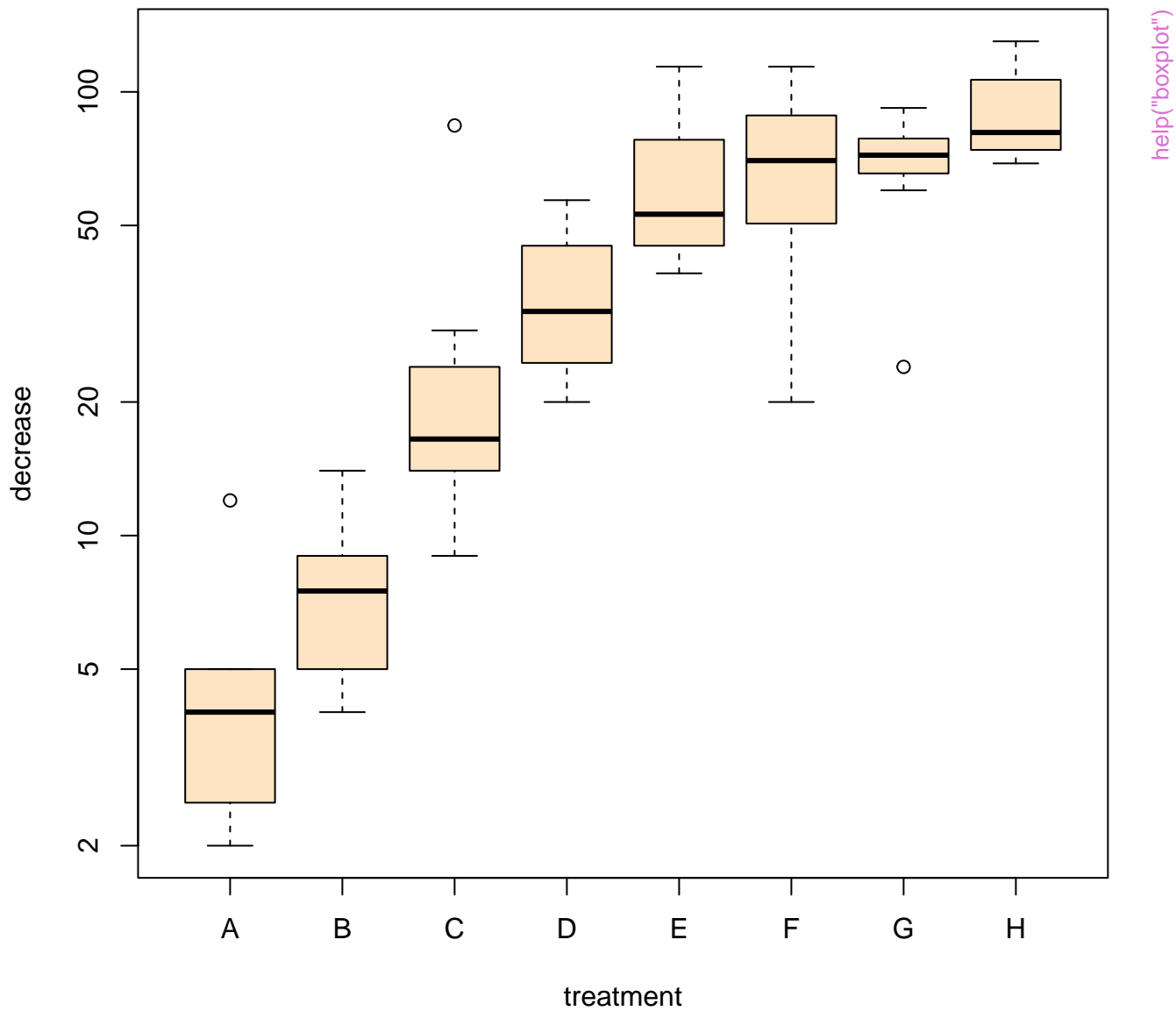
abs(stats::rnorm(7))

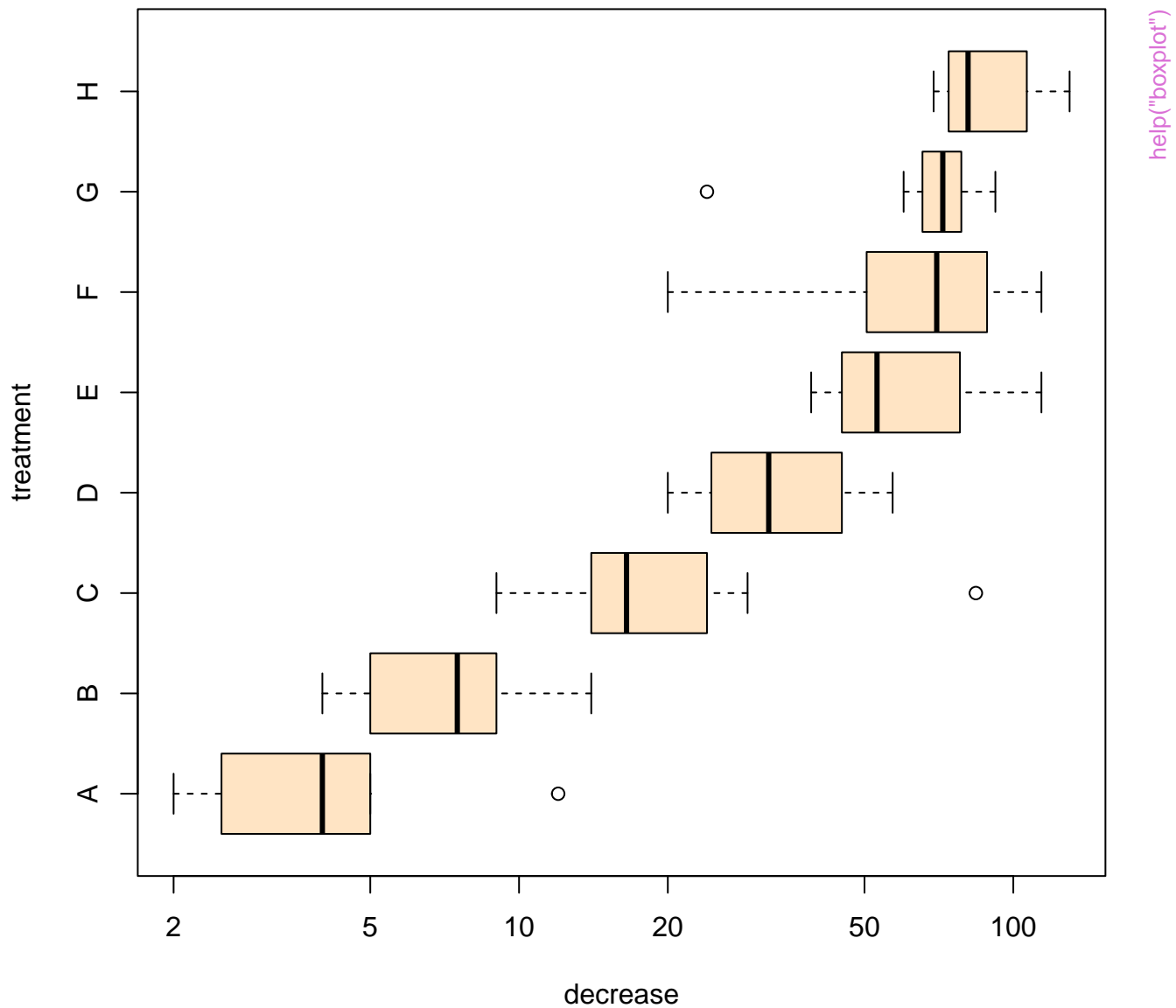


1:7

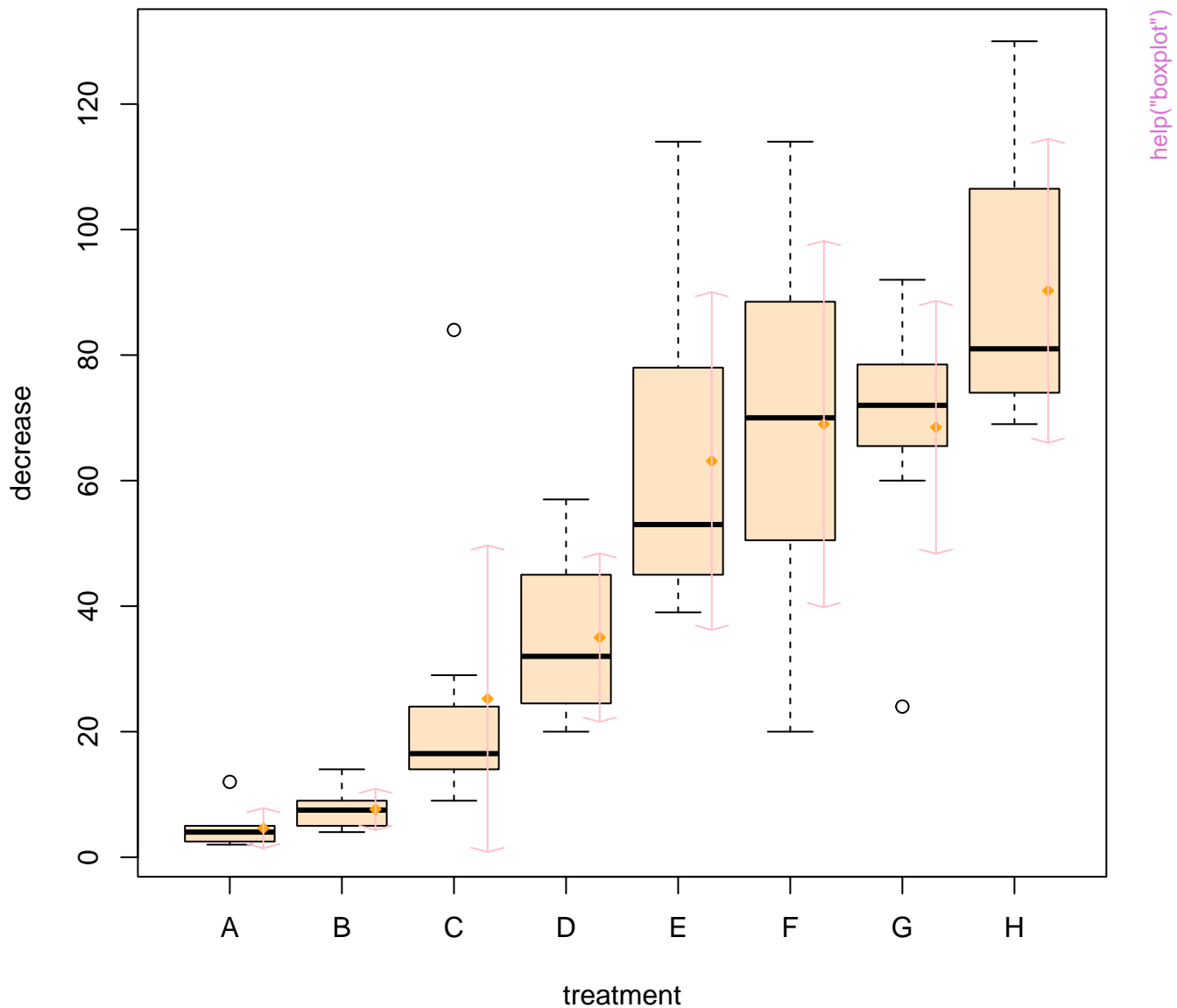
help("box")

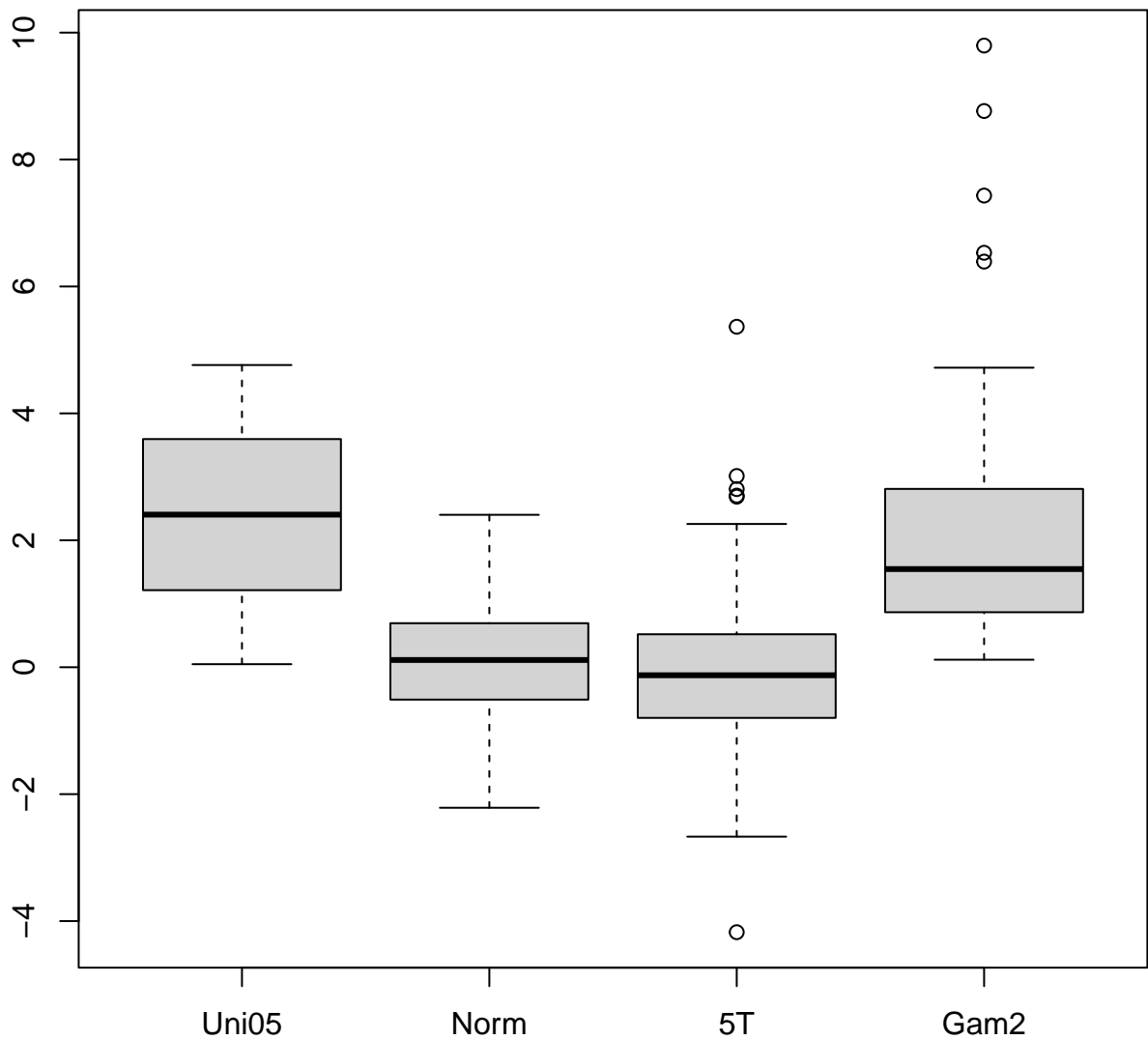






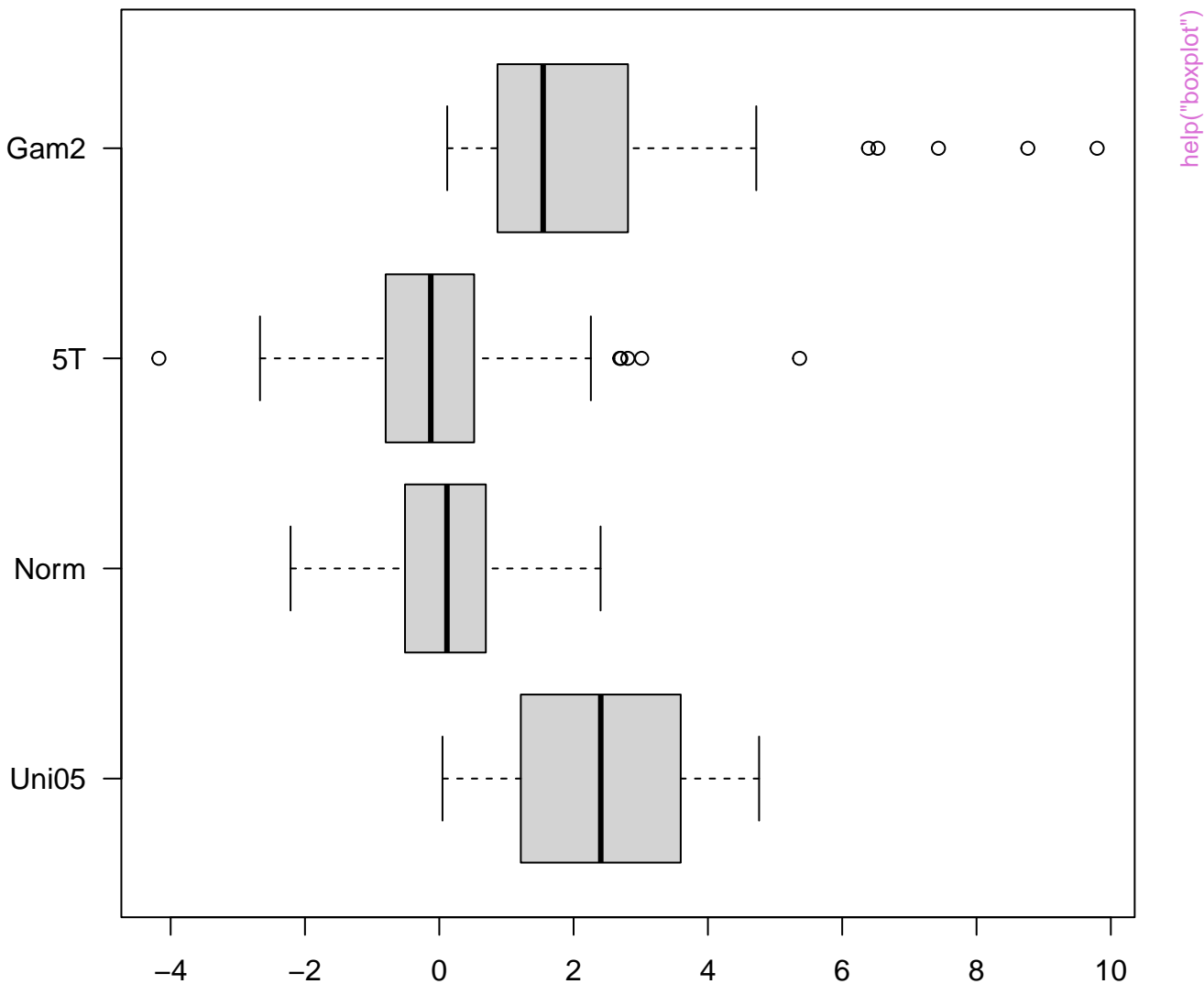
Comparing boxplot(s) and non-robust mean \pm SD





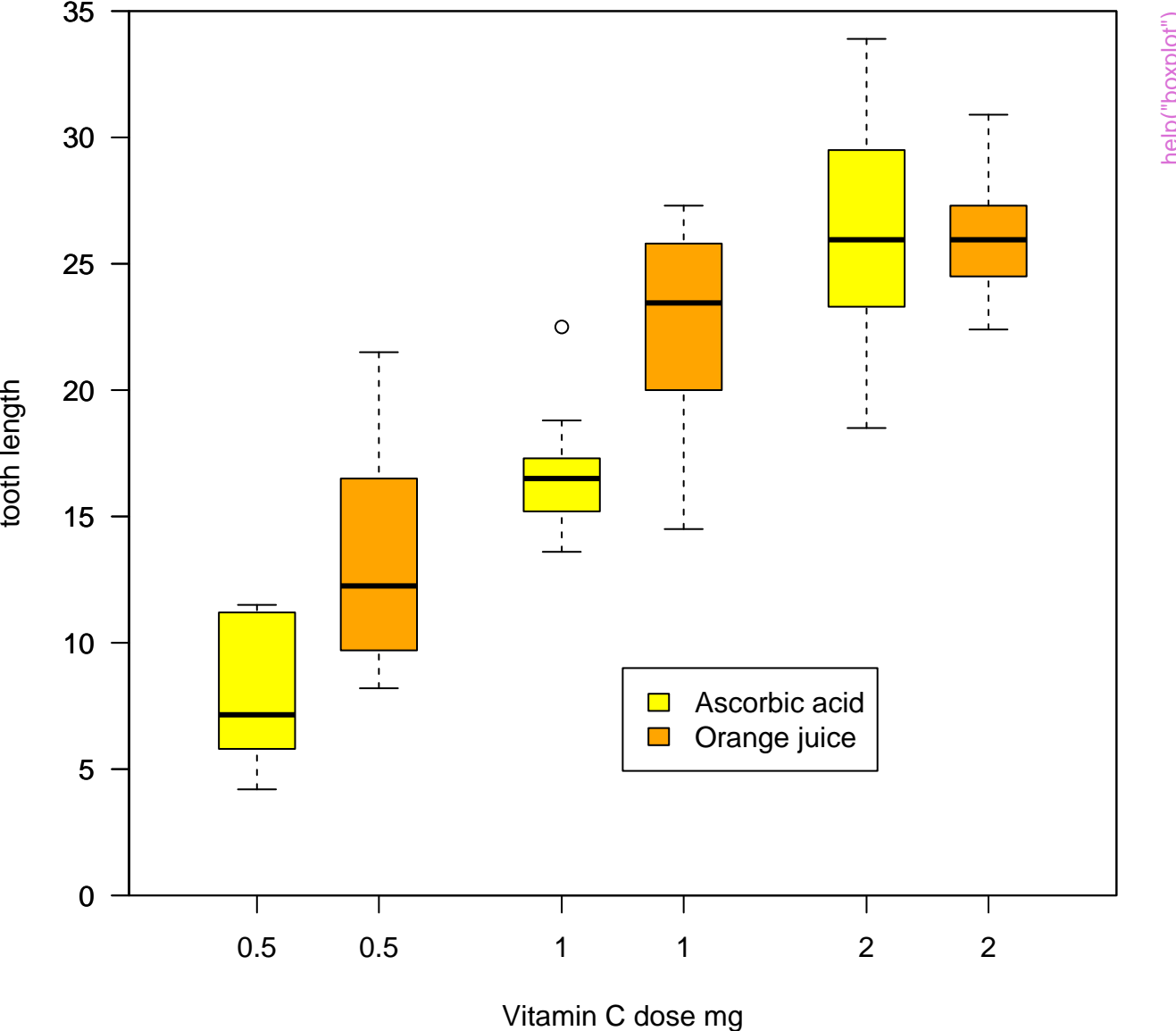
help("boxplot")

boxplot(*, horizontal = TRUE)

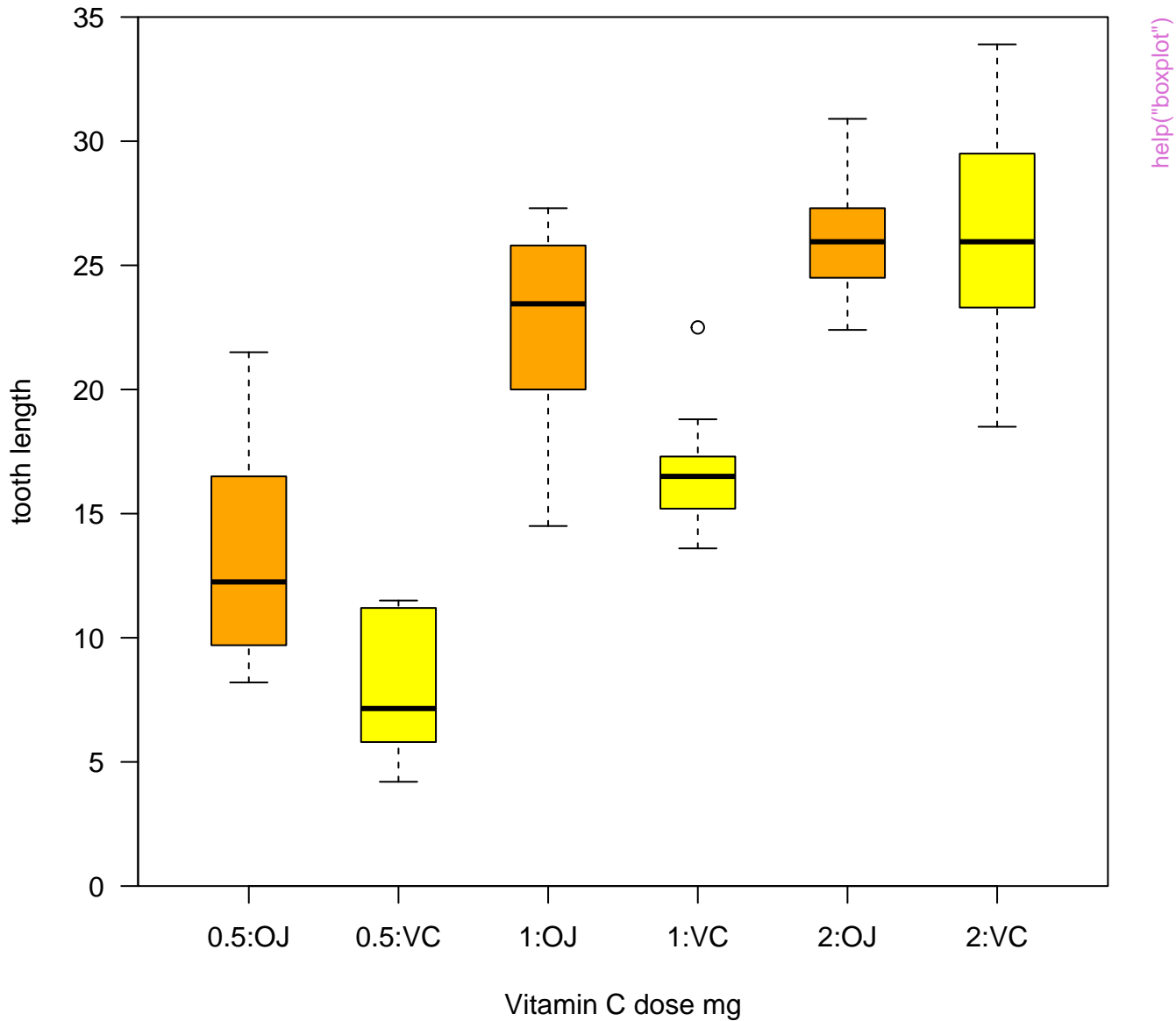


help("boxplot")

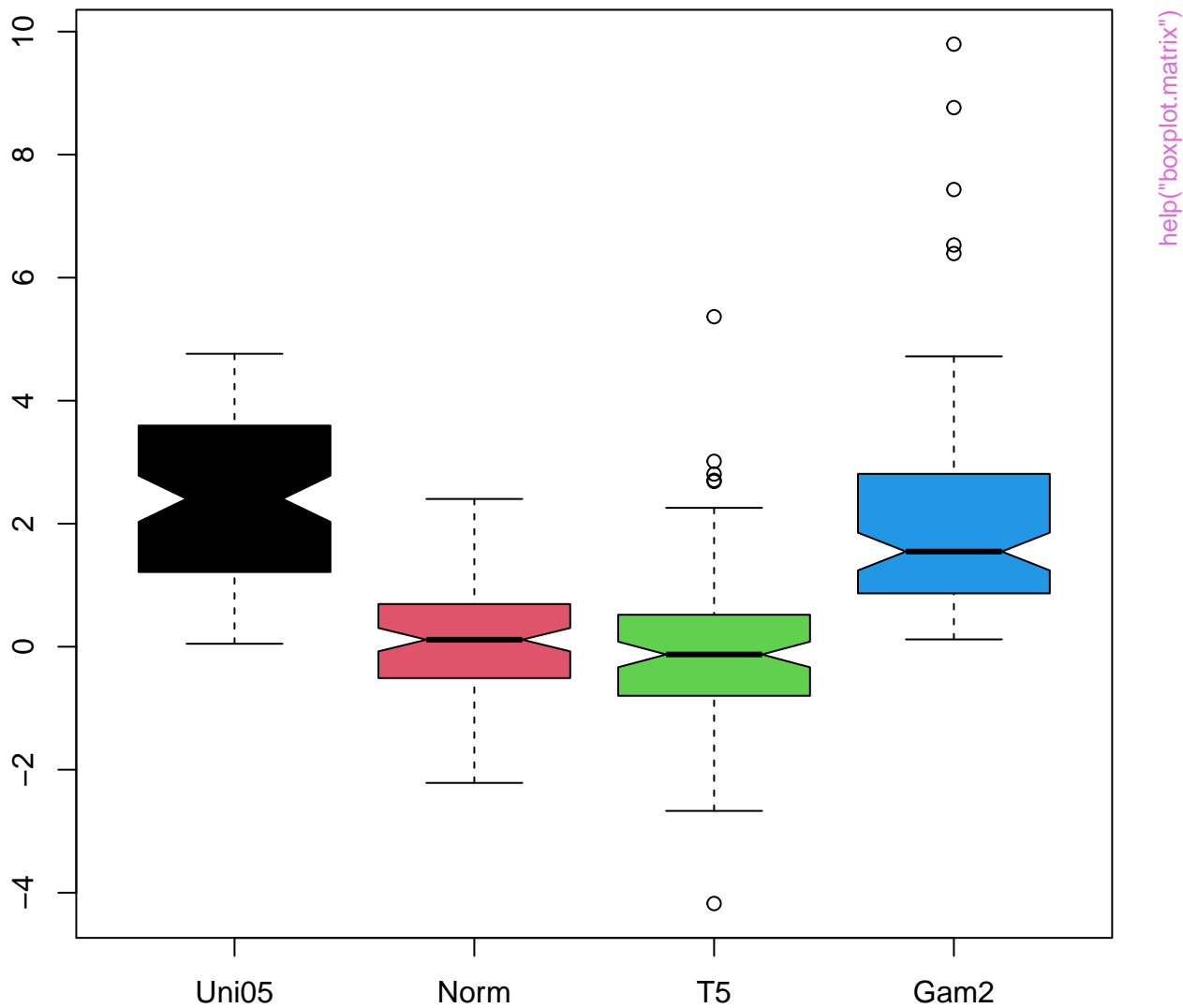
Guinea Pigs' Tooth Growth

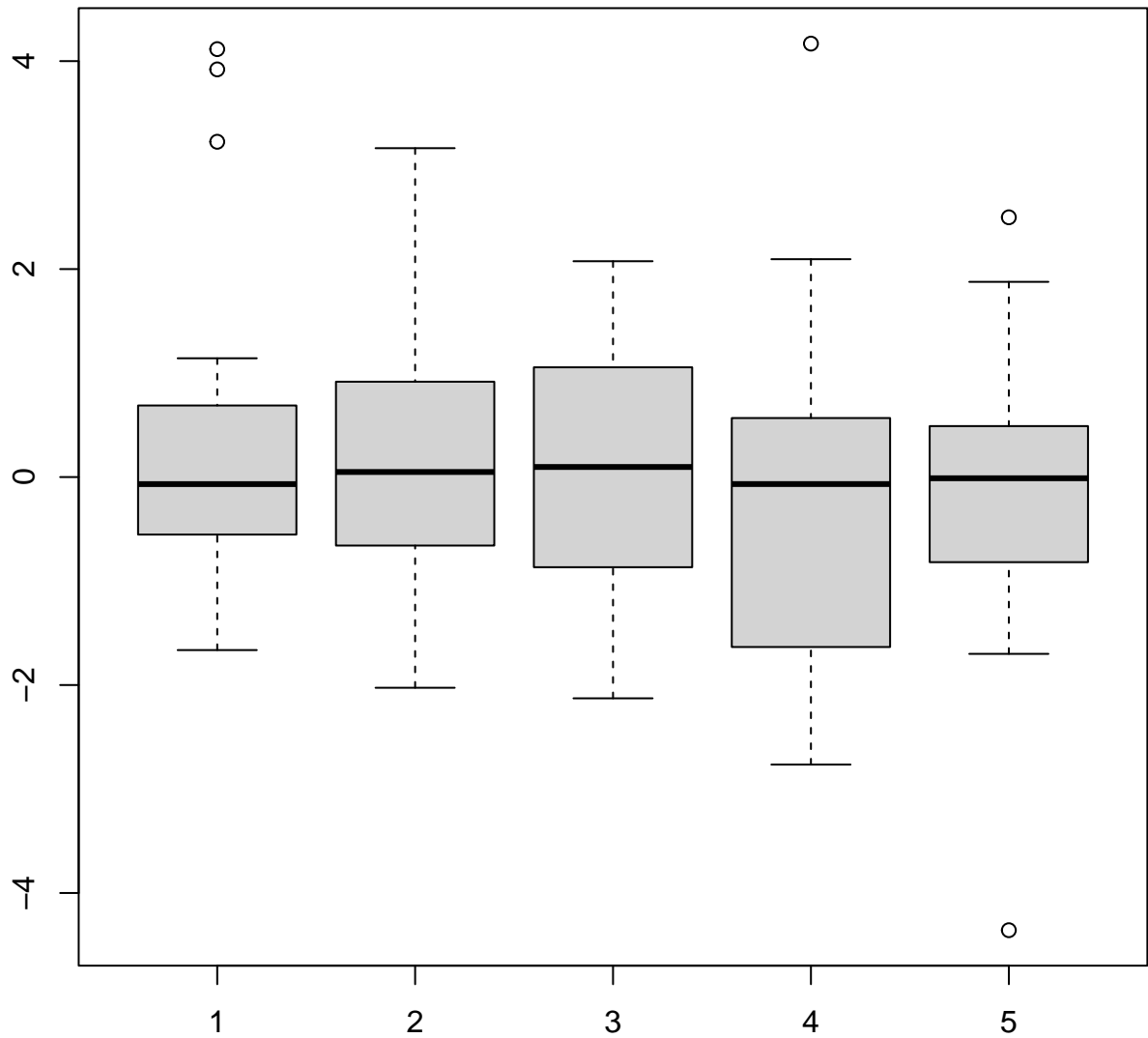


Guinea Pigs' Tooth Growth

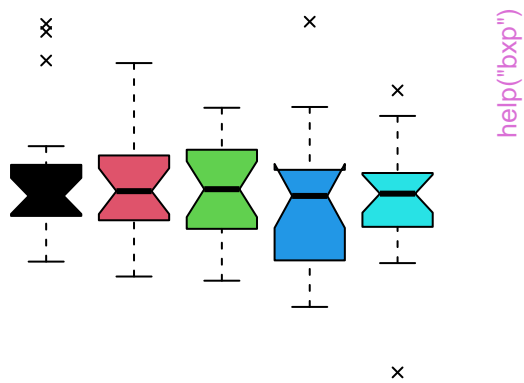
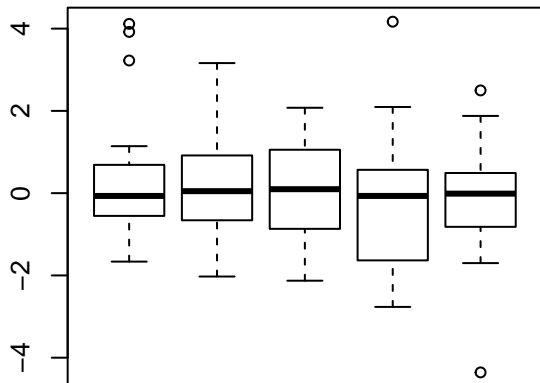


boxplot.matrix(...., main = ...)

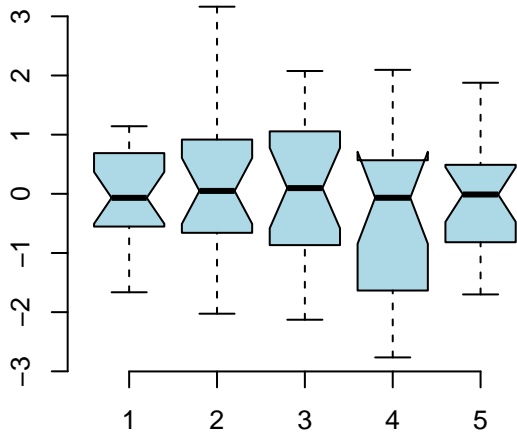




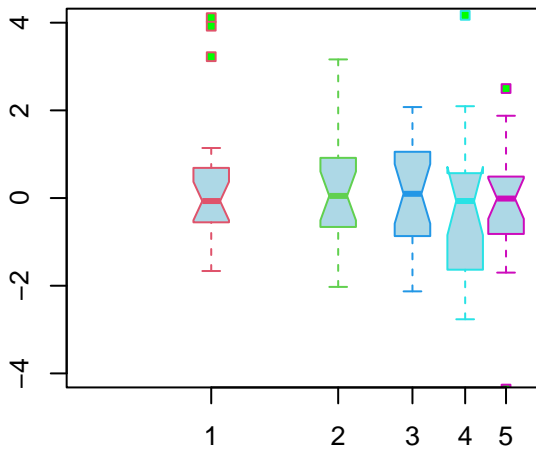
help("bxp")

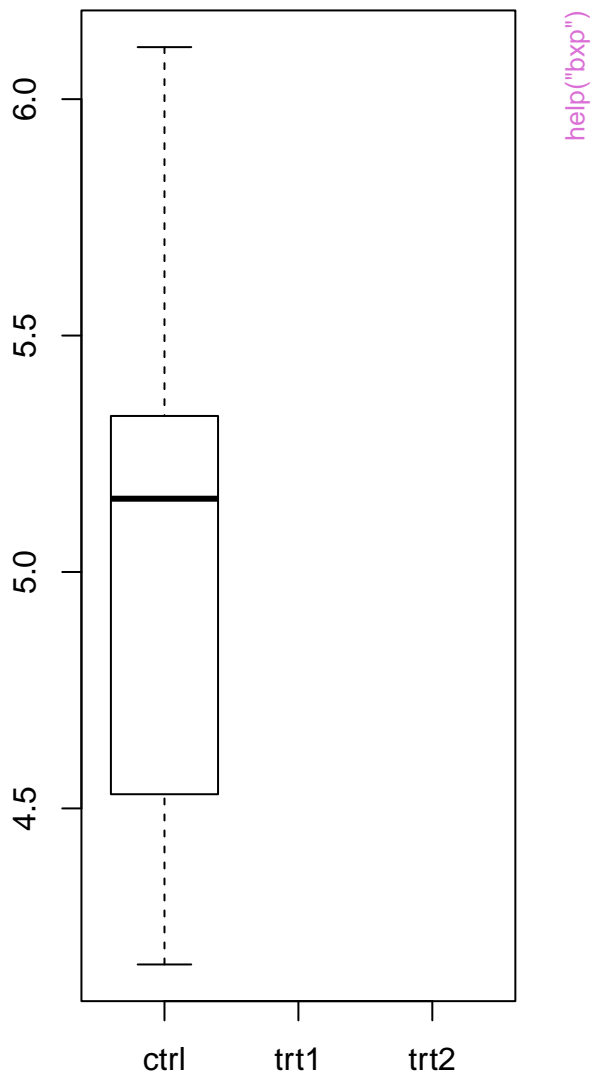
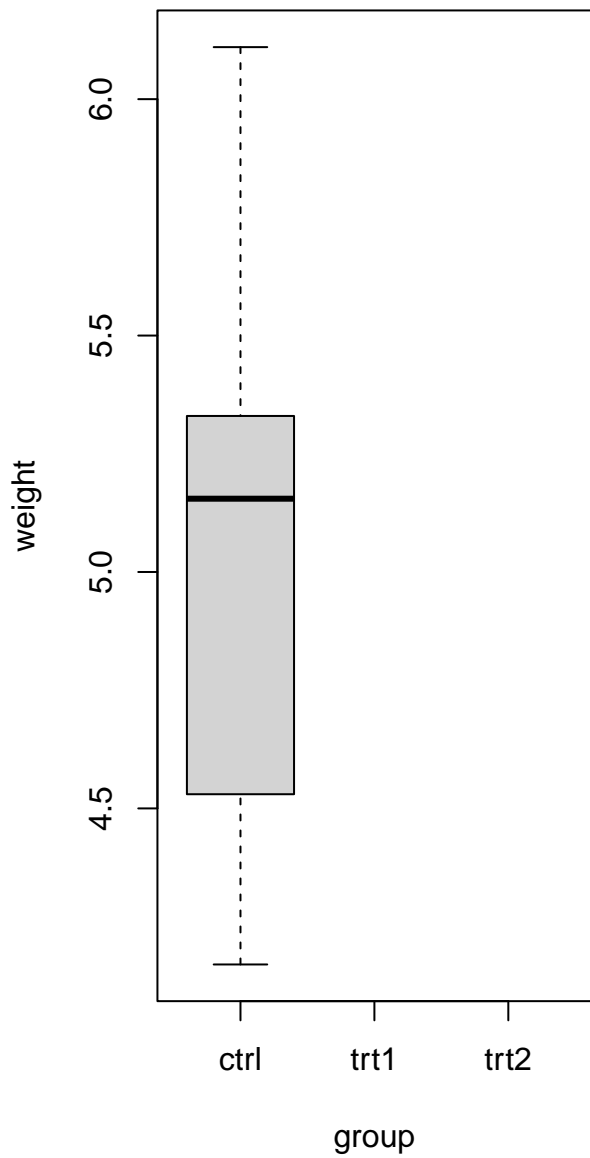


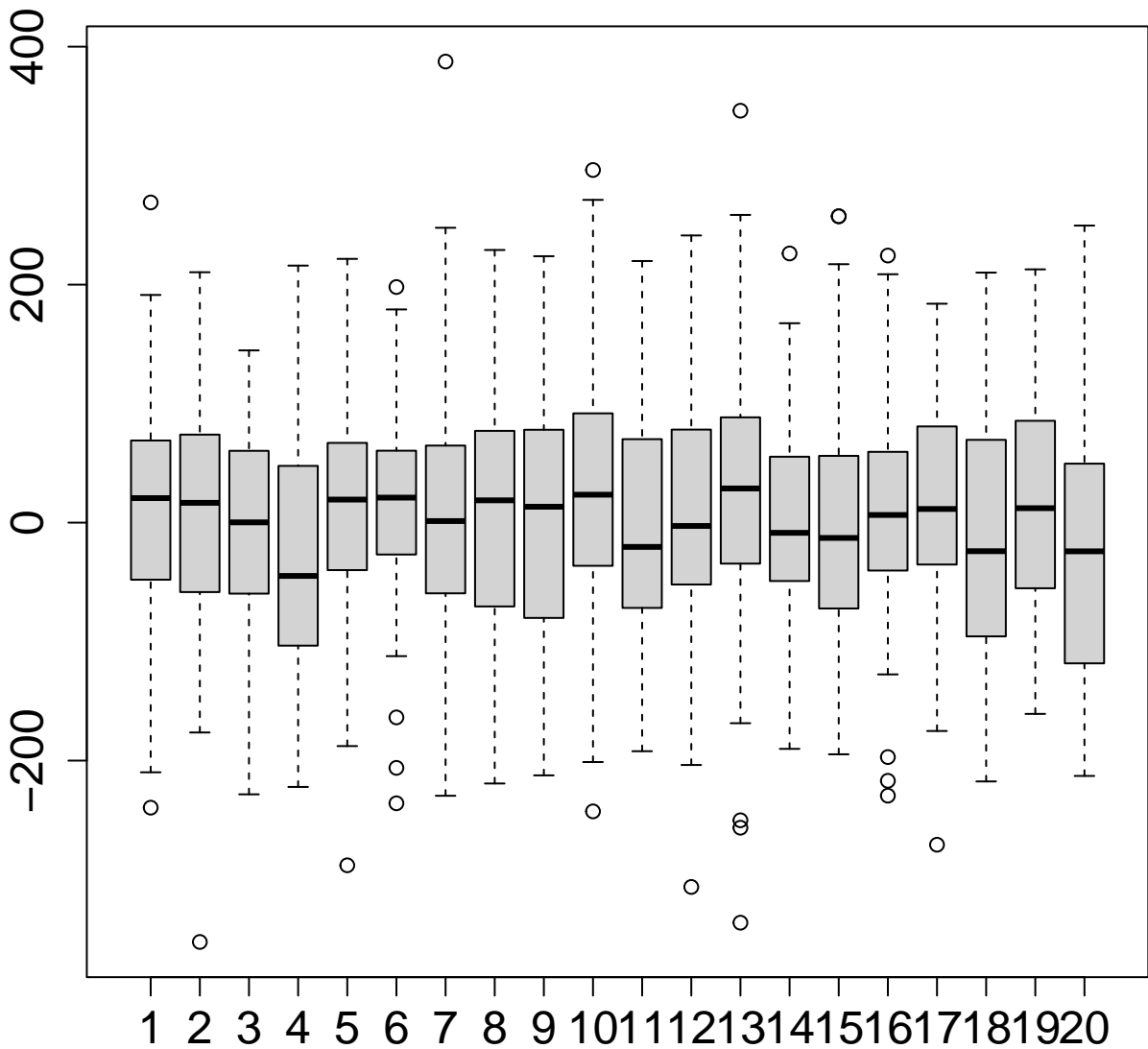
`bxp(*, frame.plot= FALSE, outline= FALSE`



`... log = 'x', ylim = *`

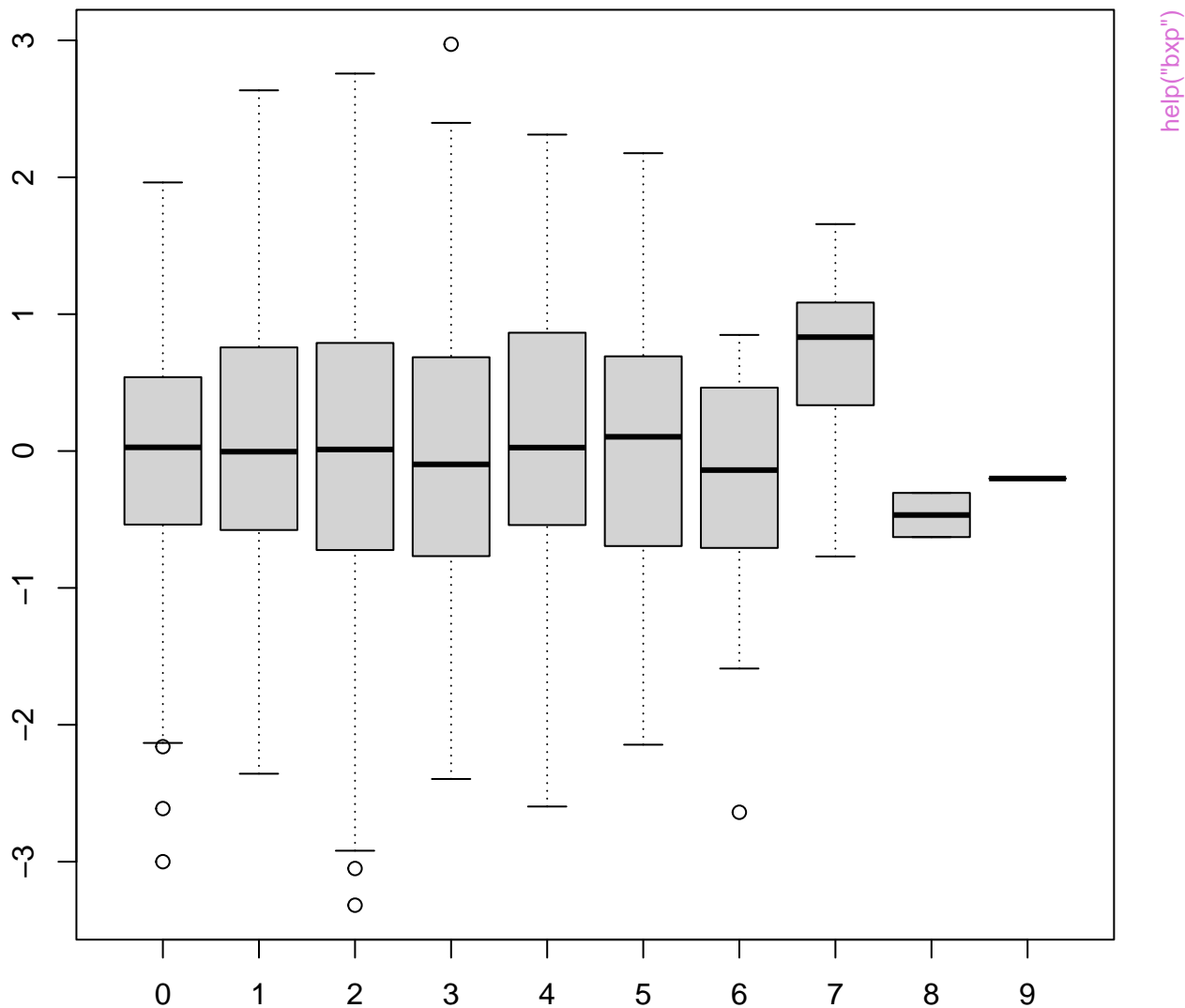






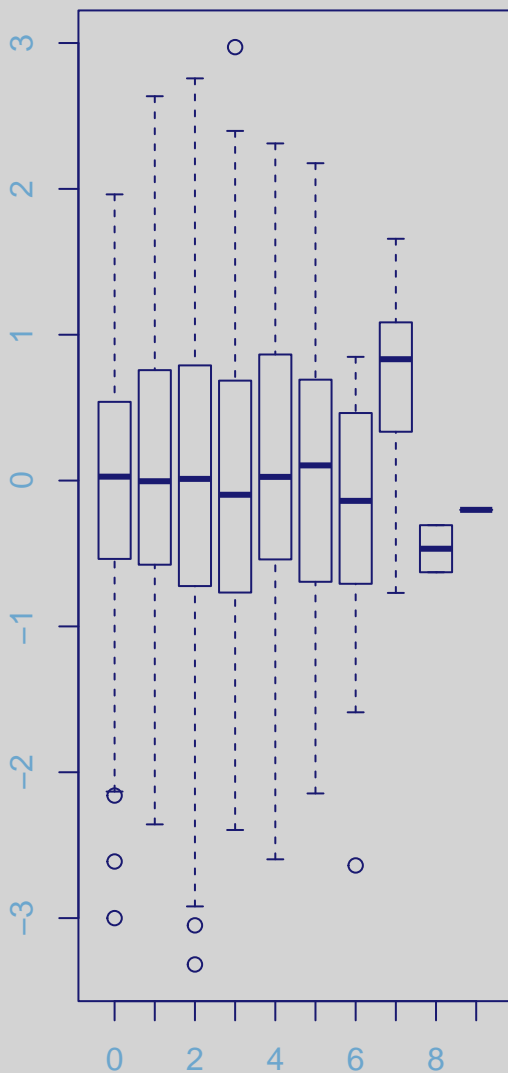
help("bxp")

boxplot(z, whisklty = 3)

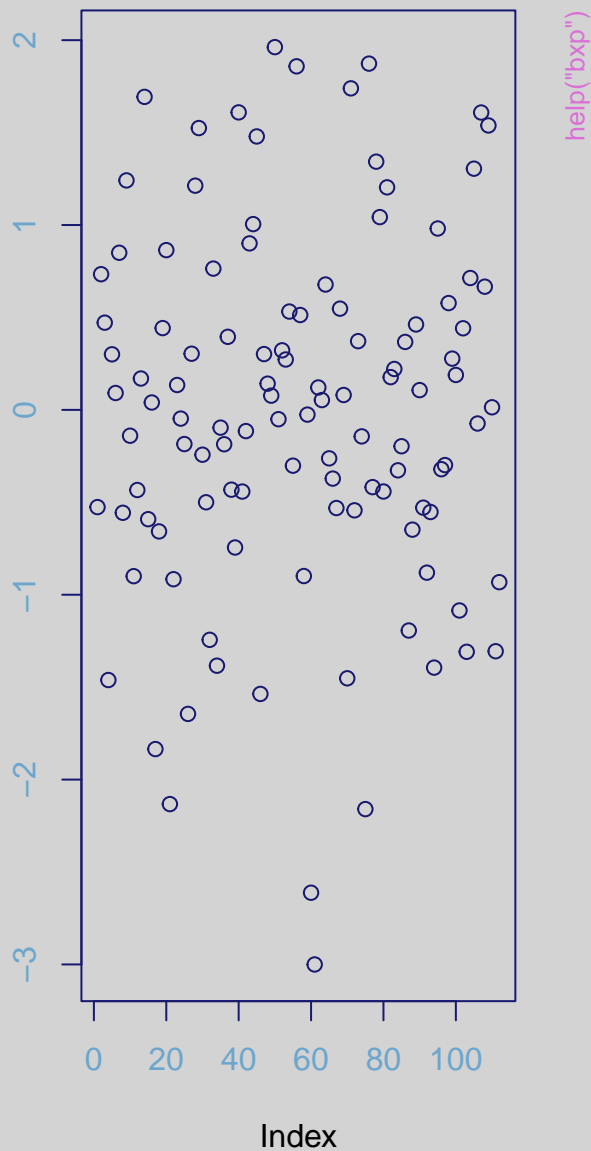


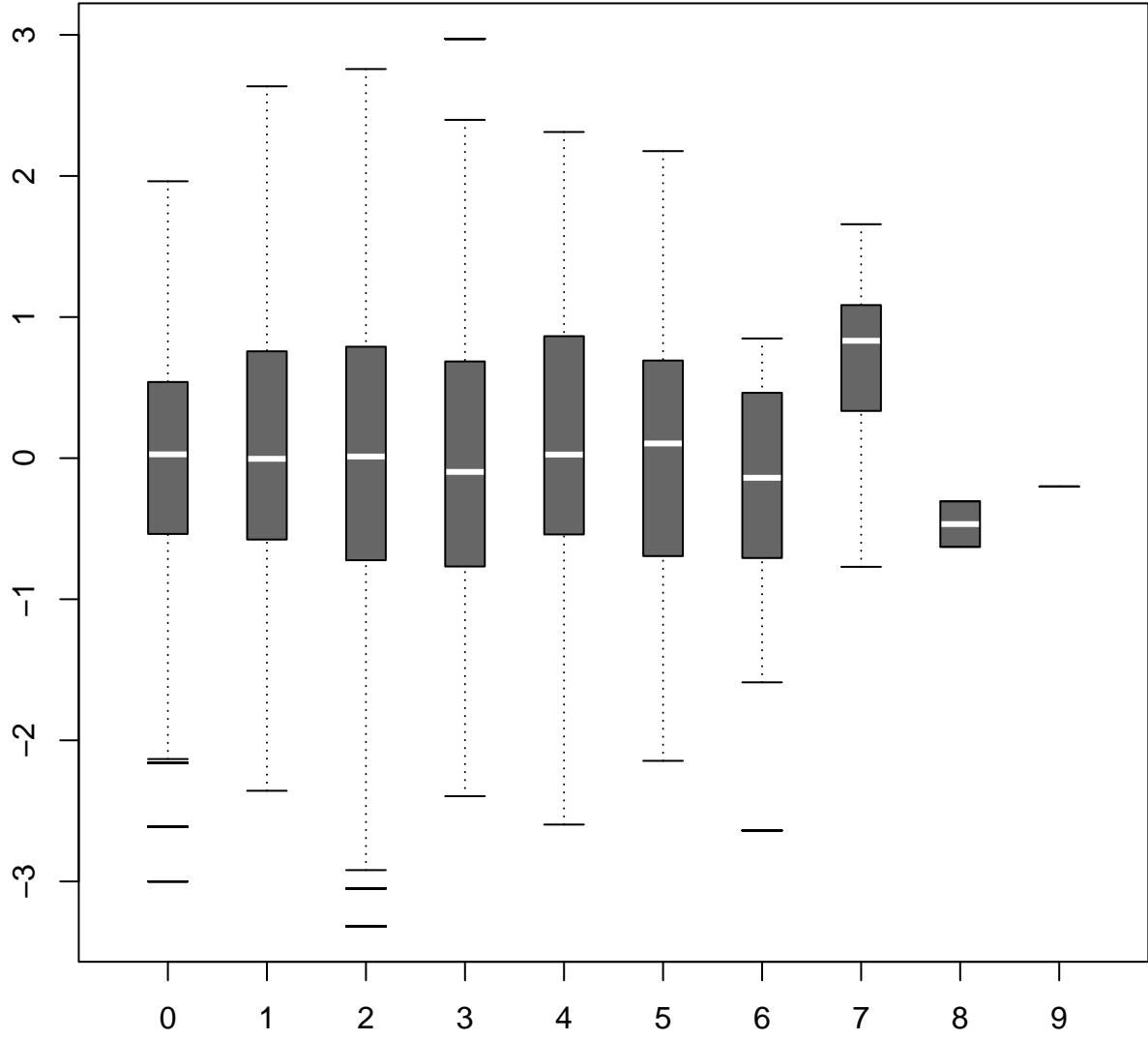
`par(bg="light gray", fg="midnight blue")`

`boxplot(*, col.axis=...,main=..)`

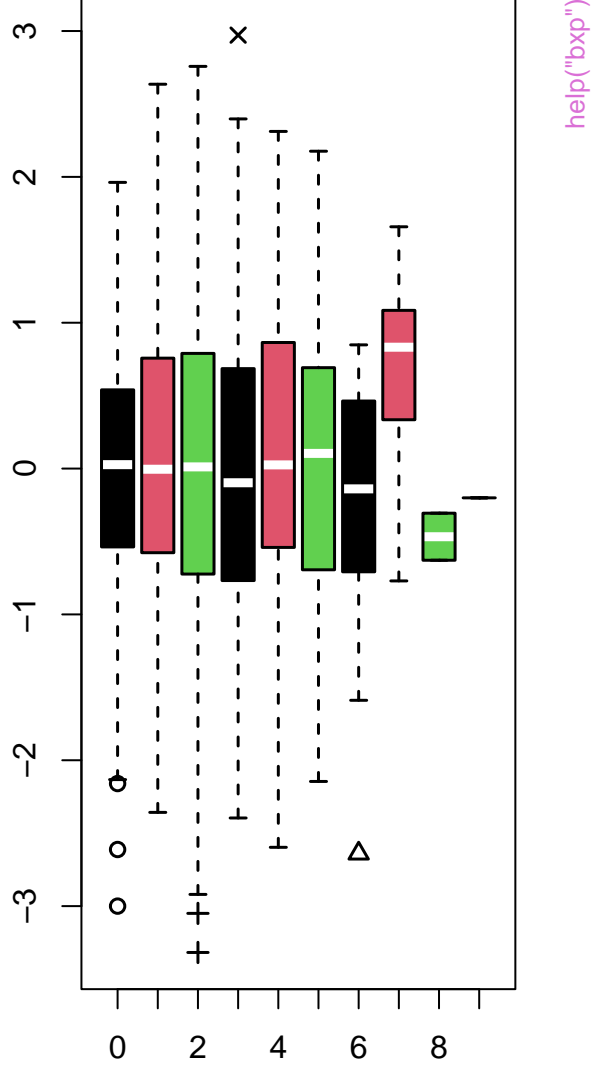
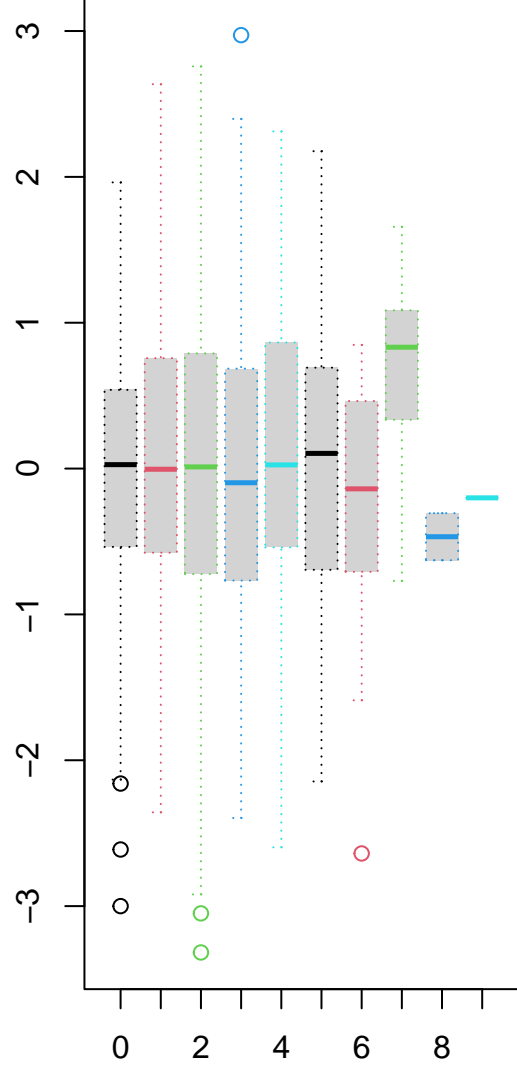


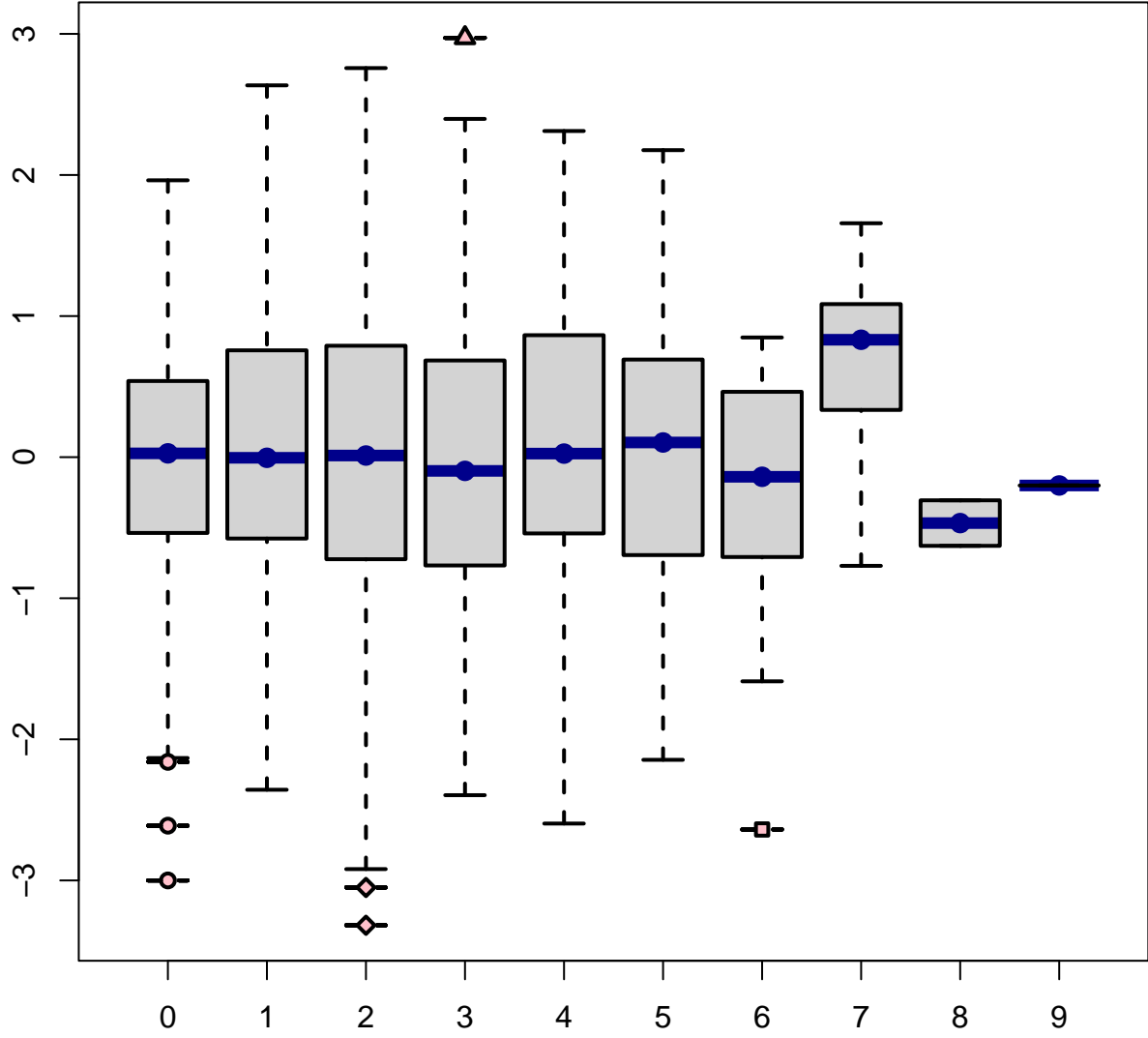
`plot(*, col.axis=...,main=..)`



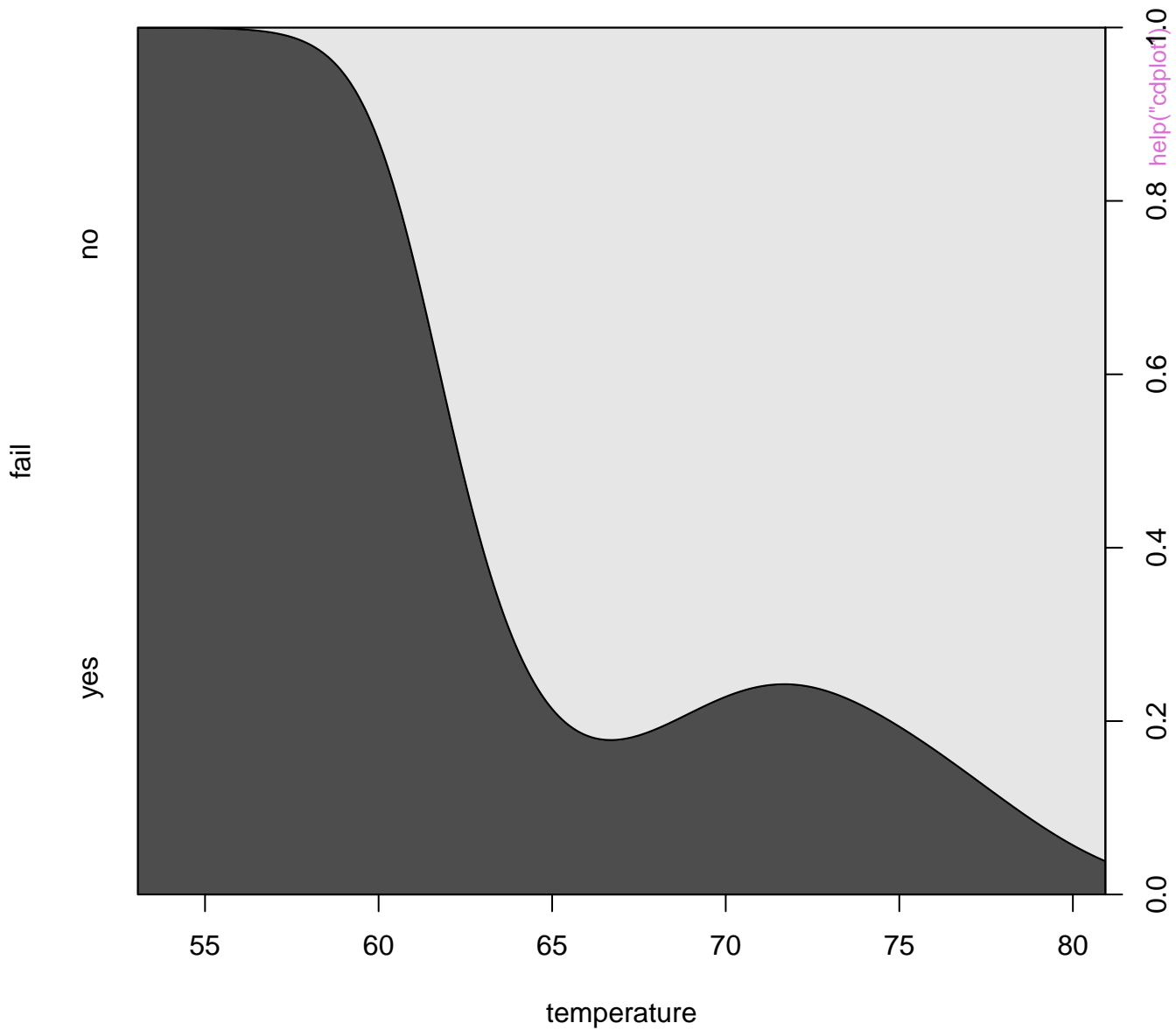


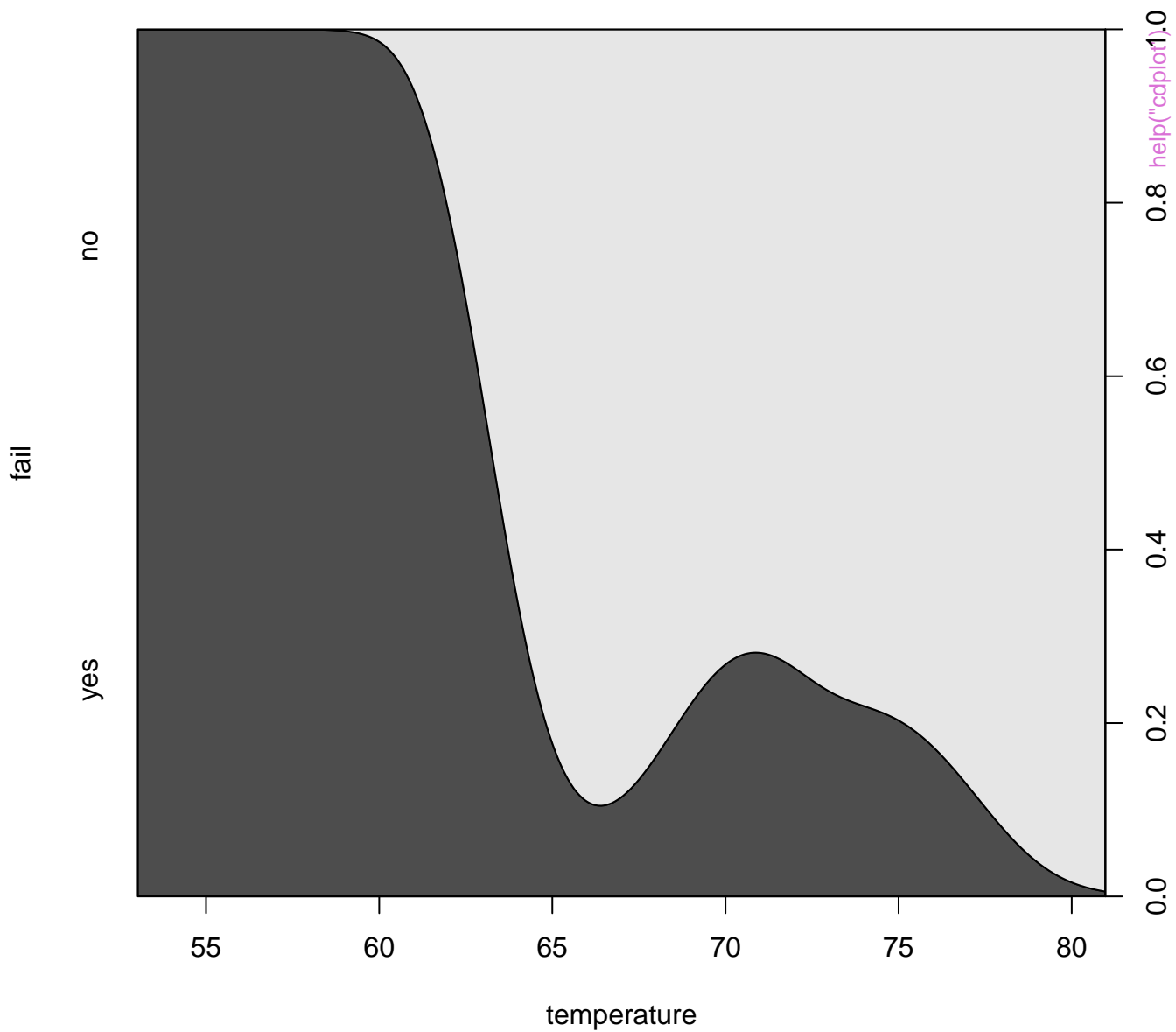
help("bxp")

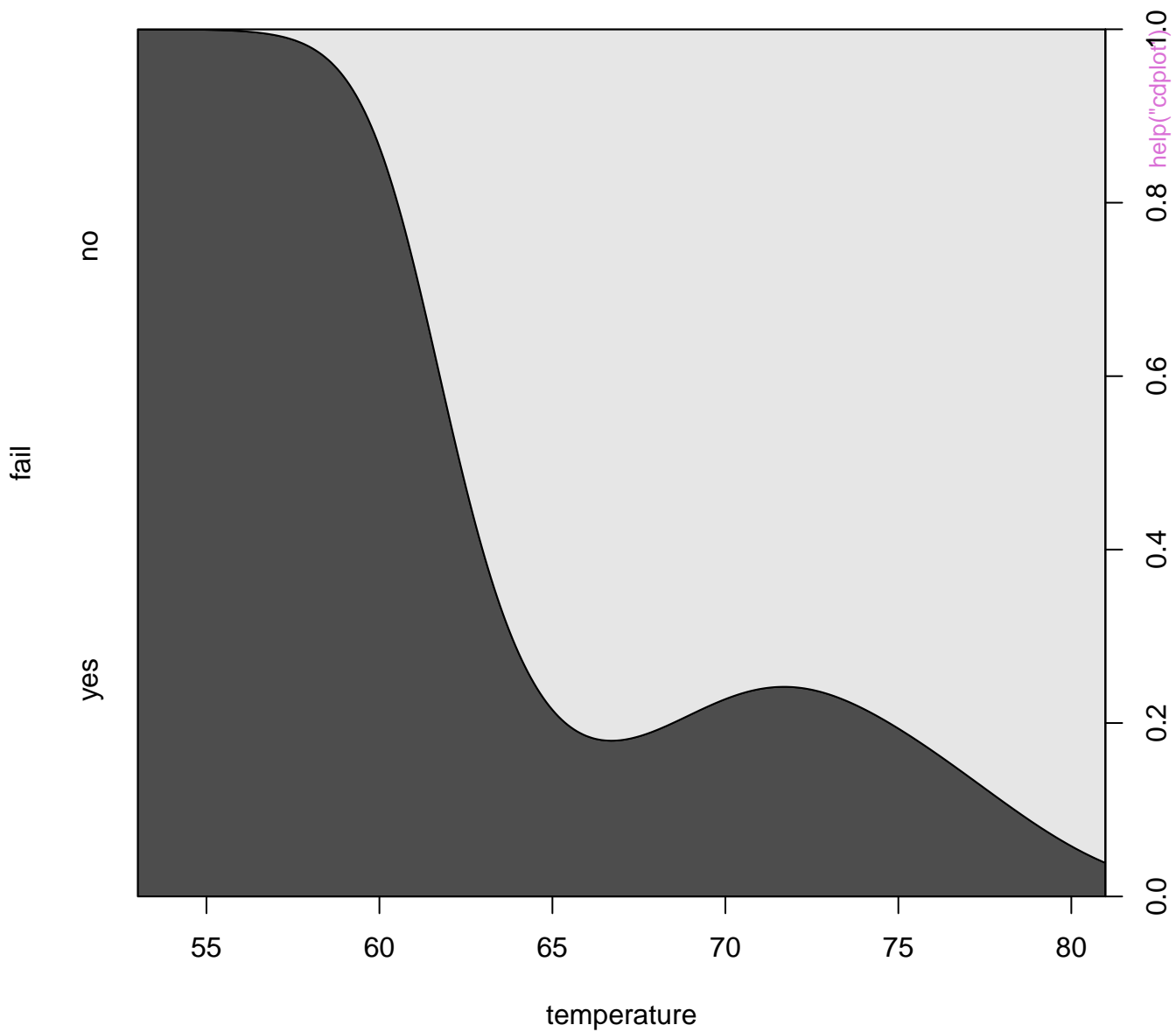


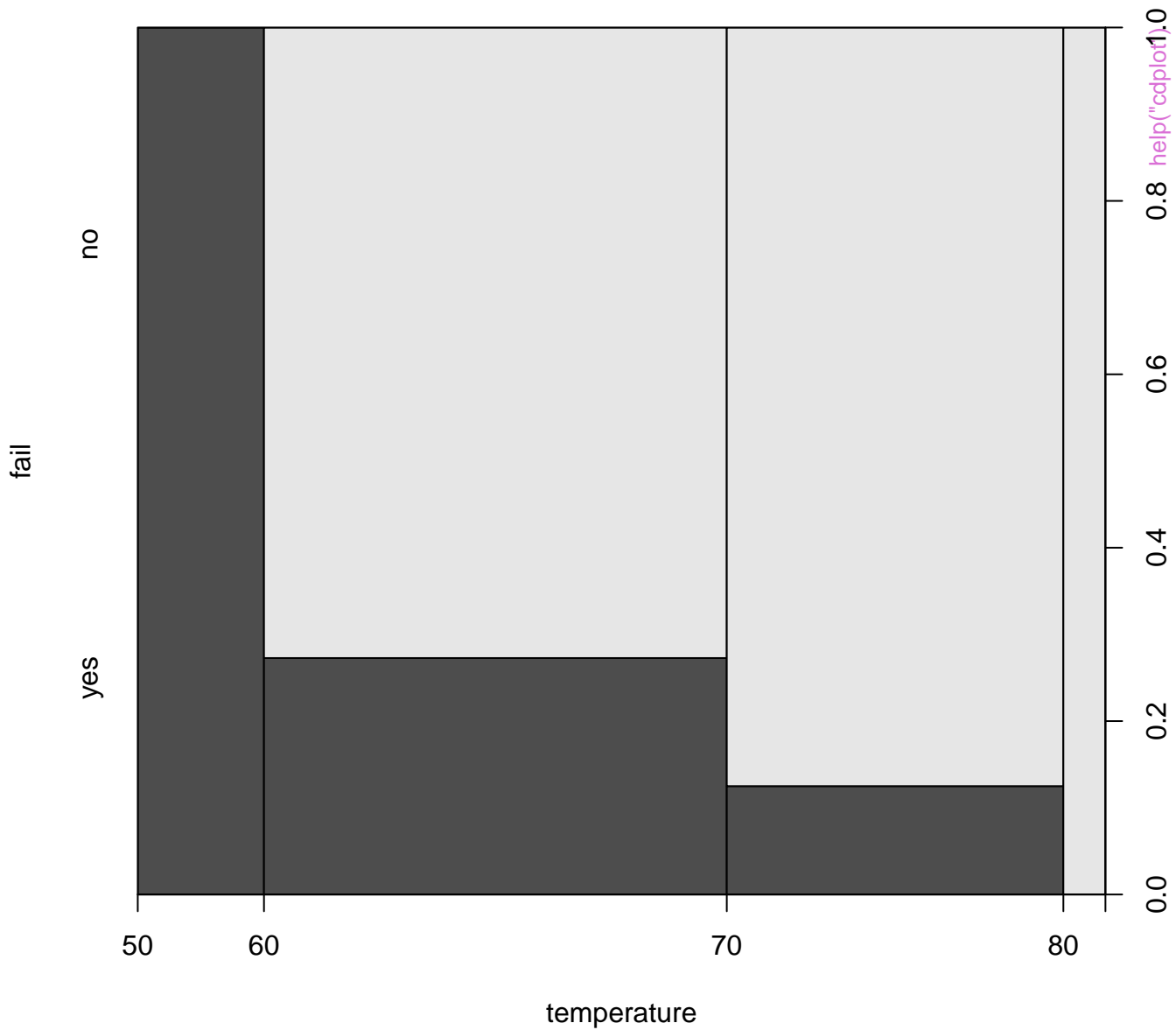


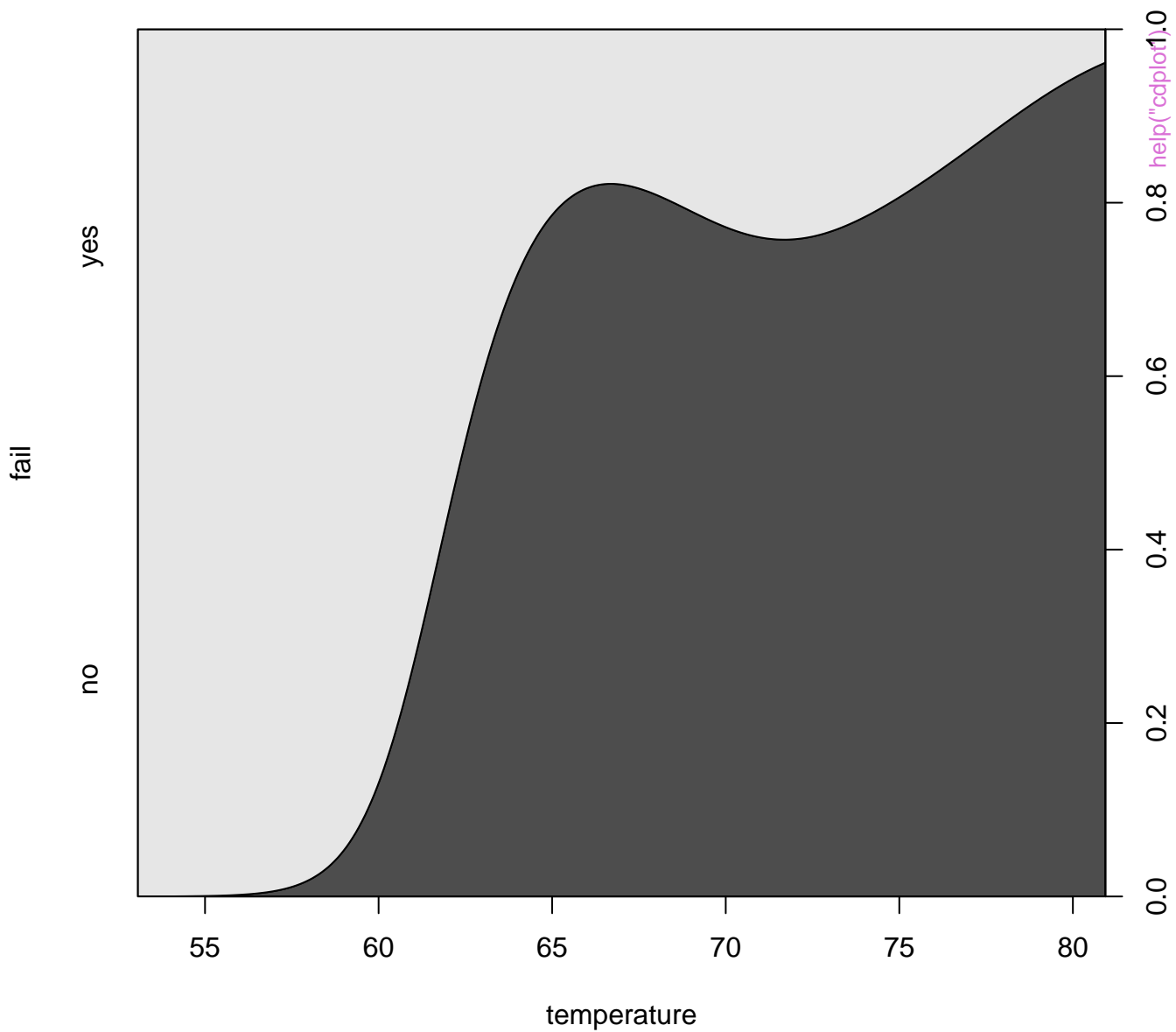
help("bxp")



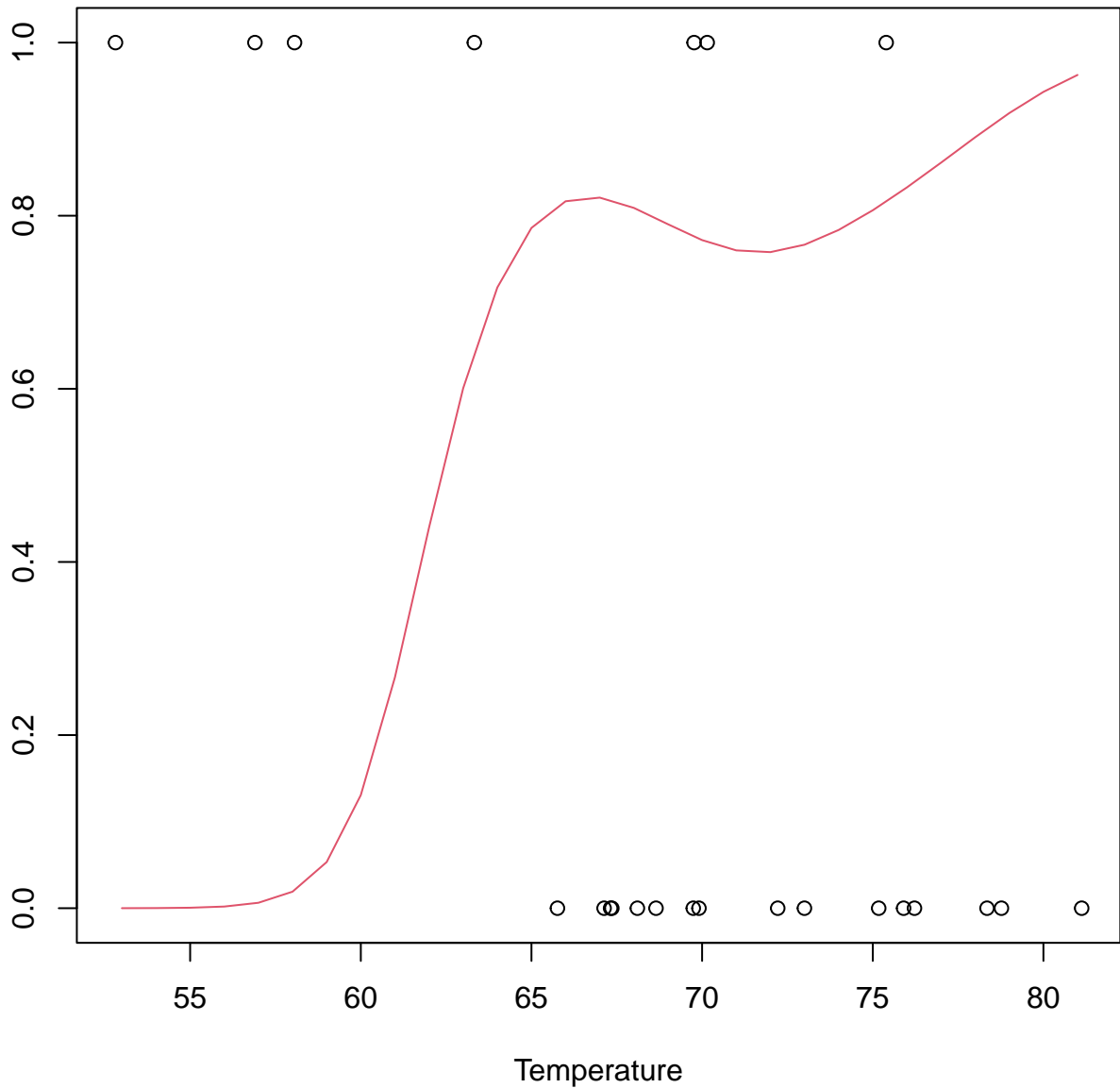






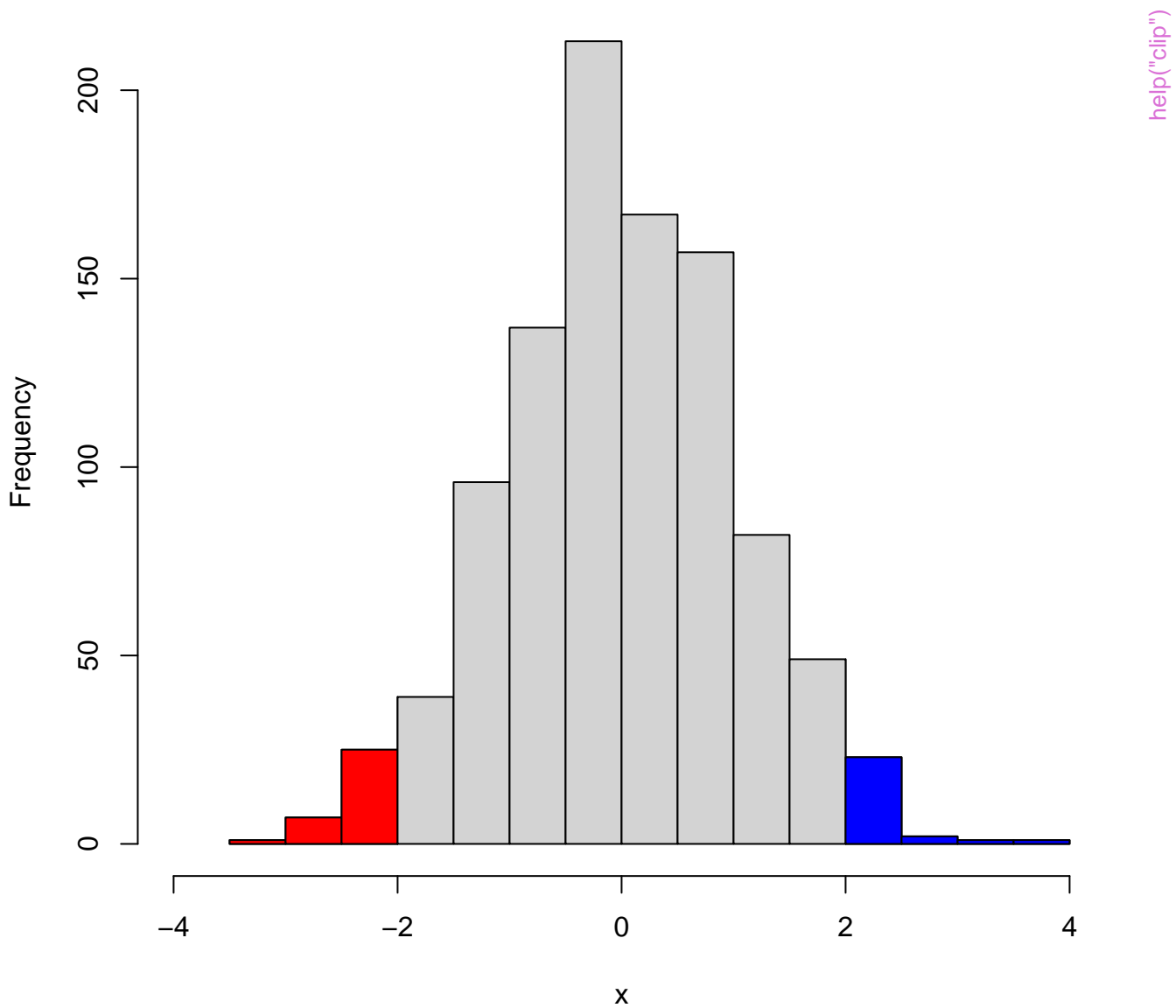


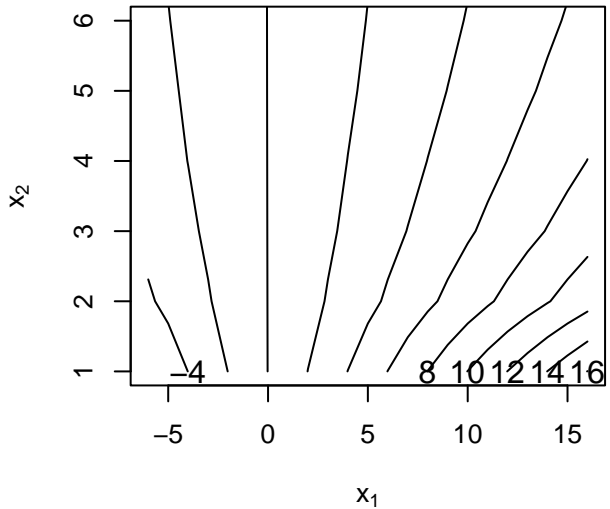
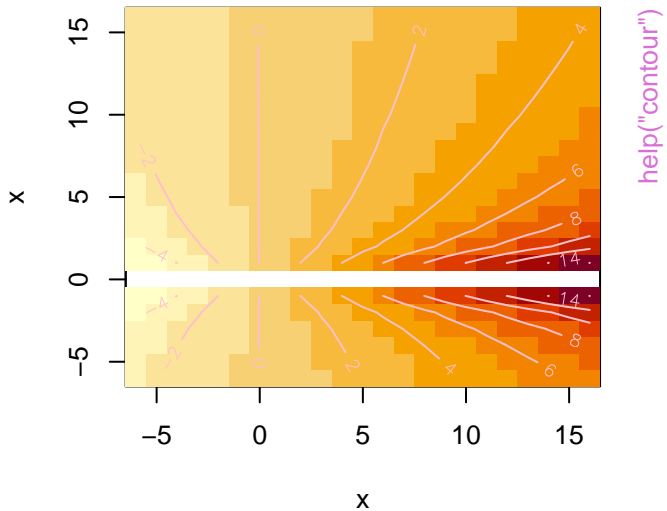
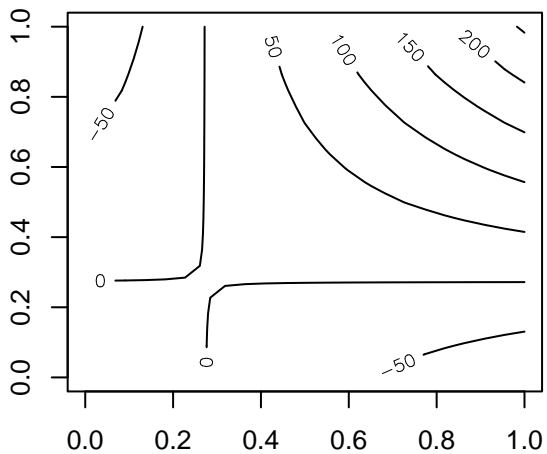
Conditional failure probability



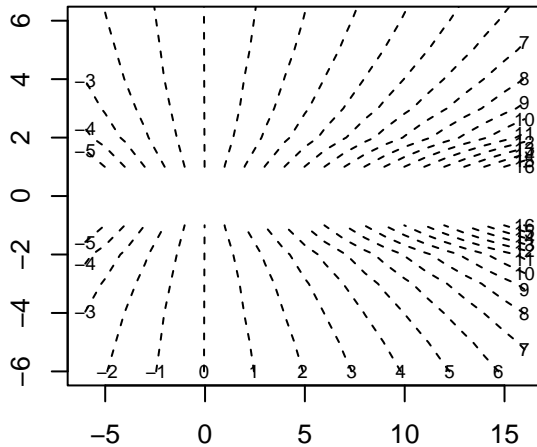
help("cplot")

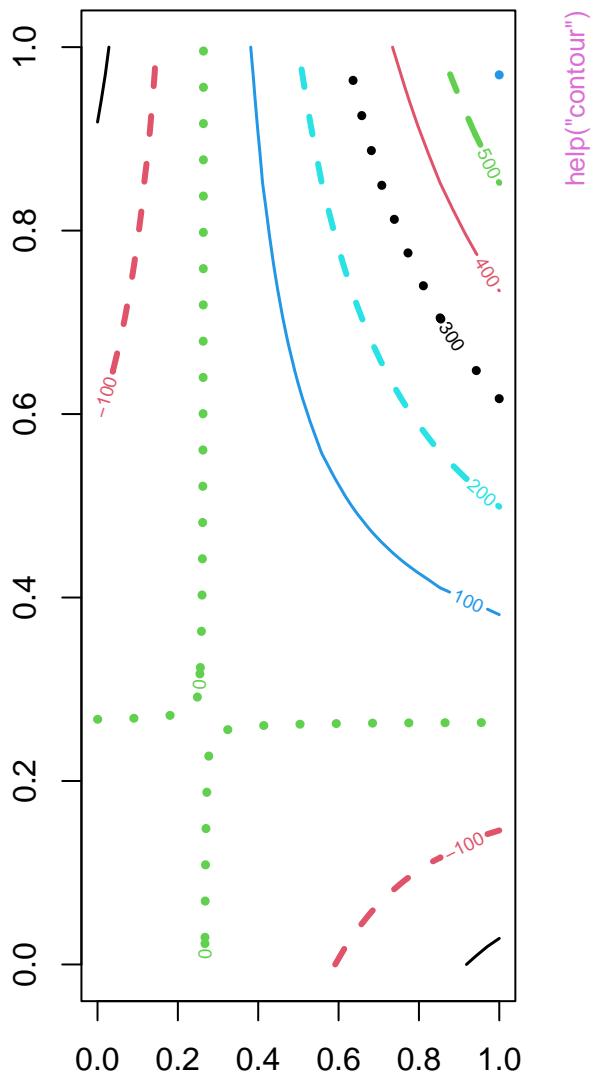
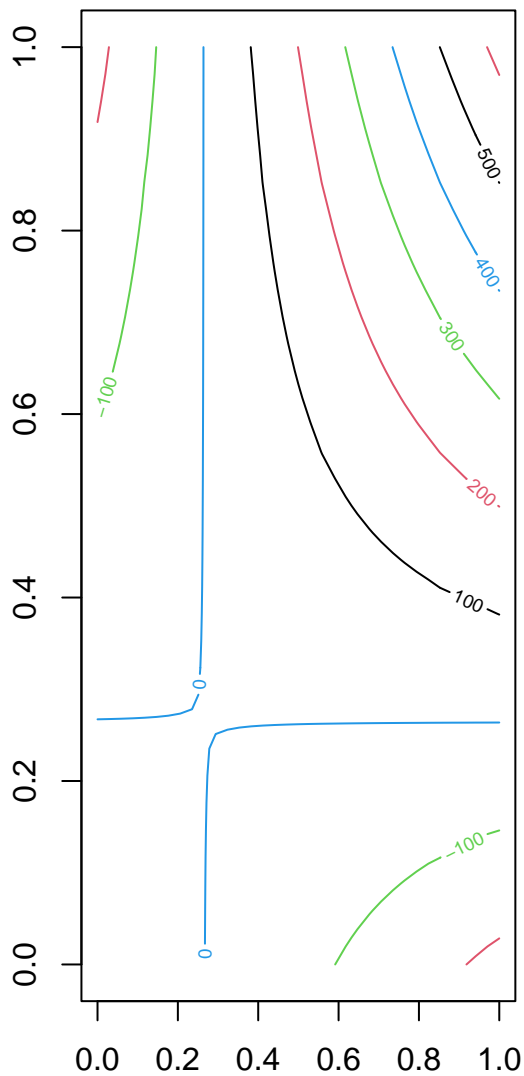
Histogram of x

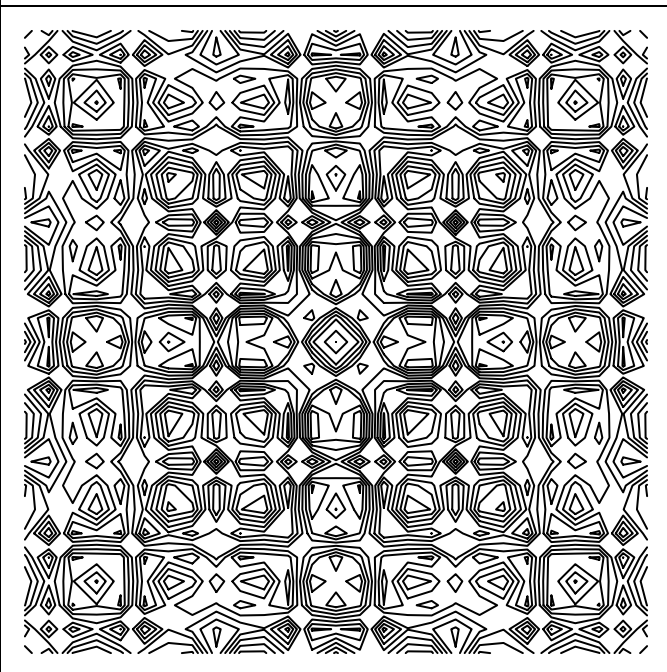
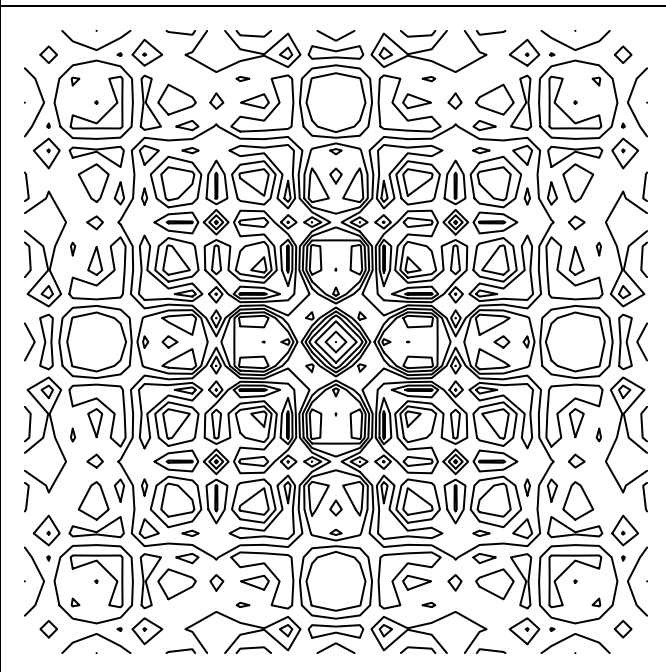
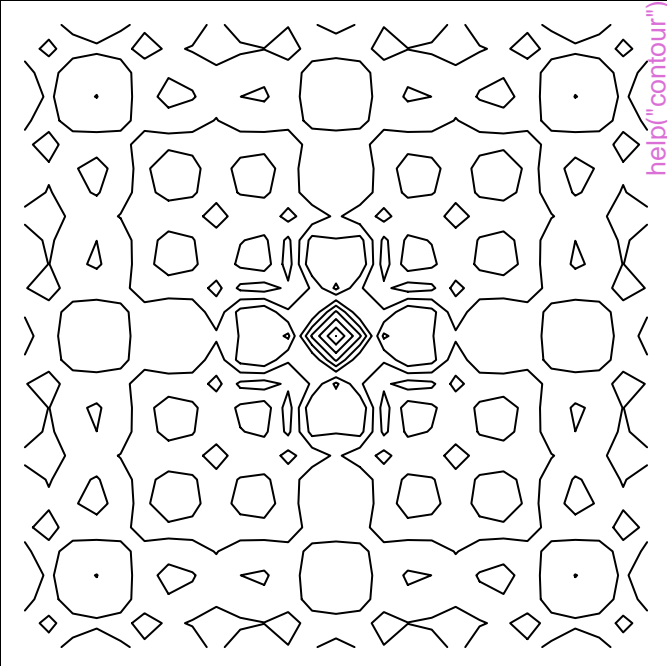
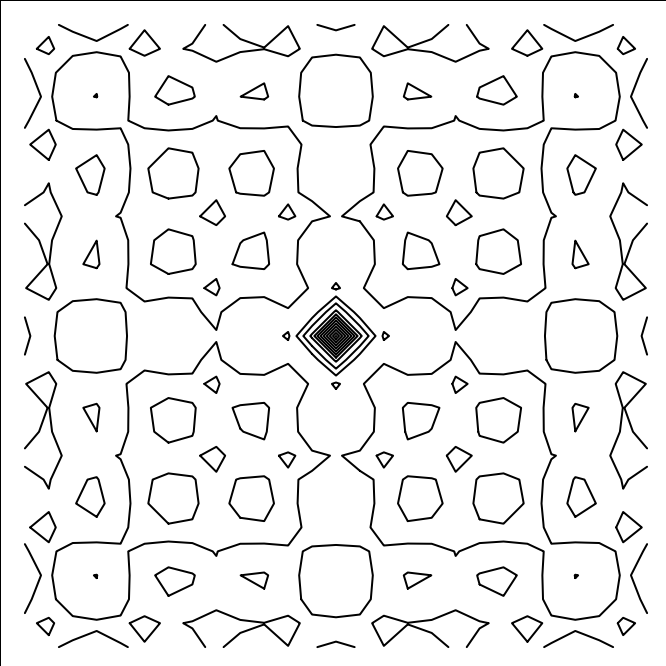




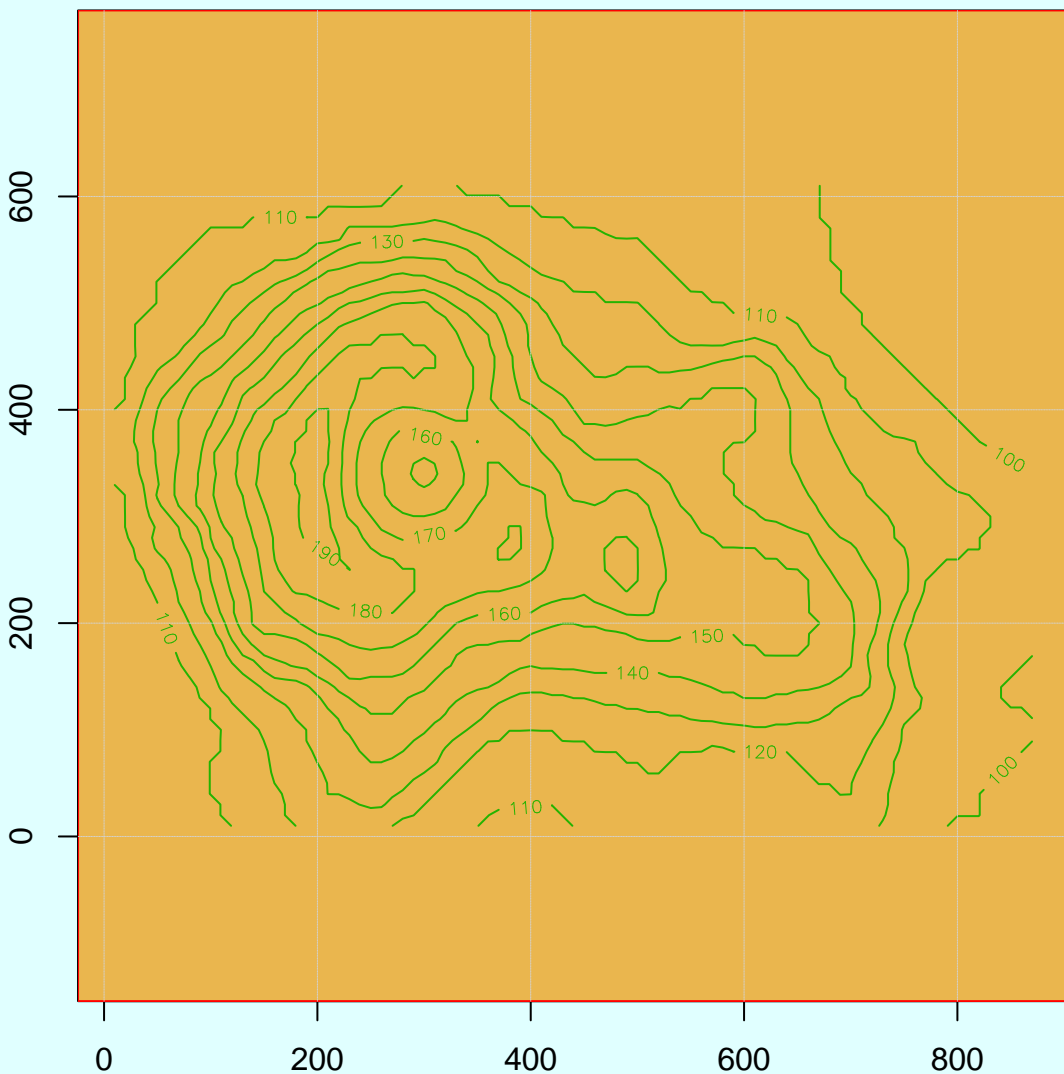
20 levels; "simple" labelling method



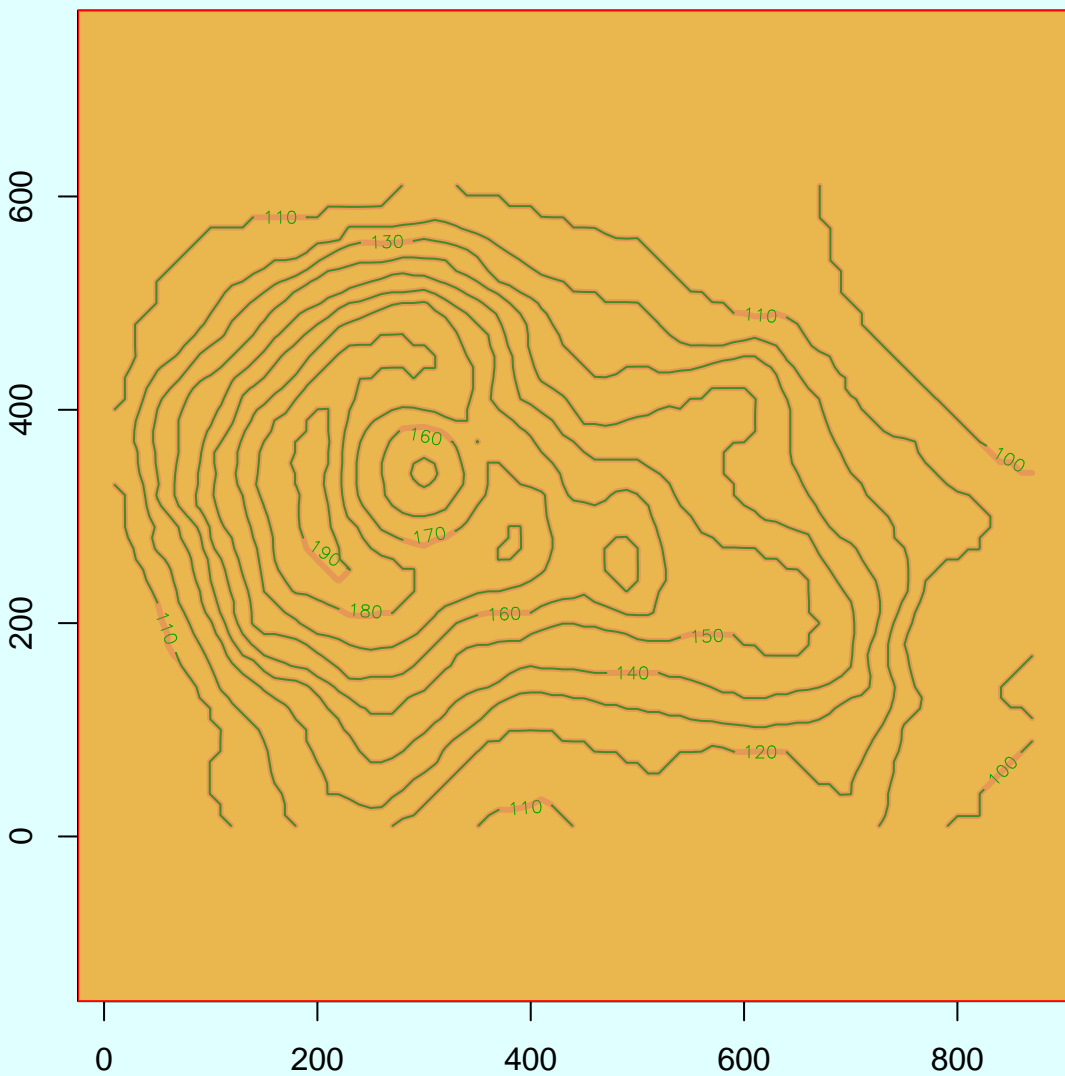




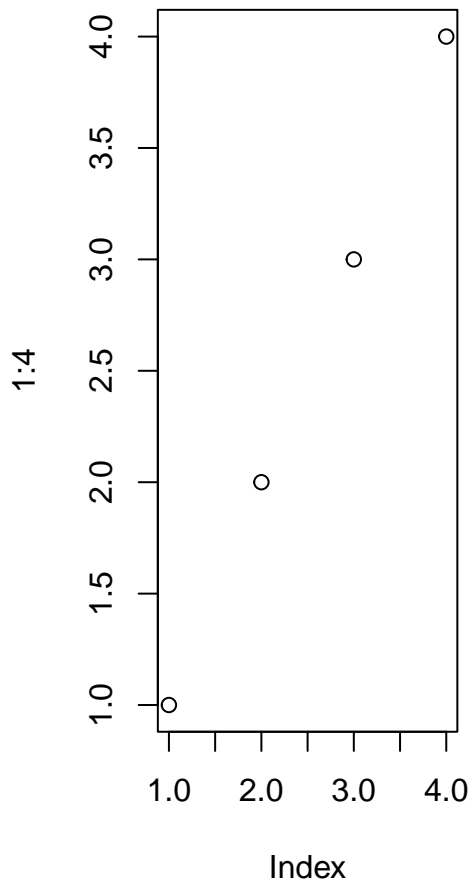
A Topographic Map of Maunga Whau



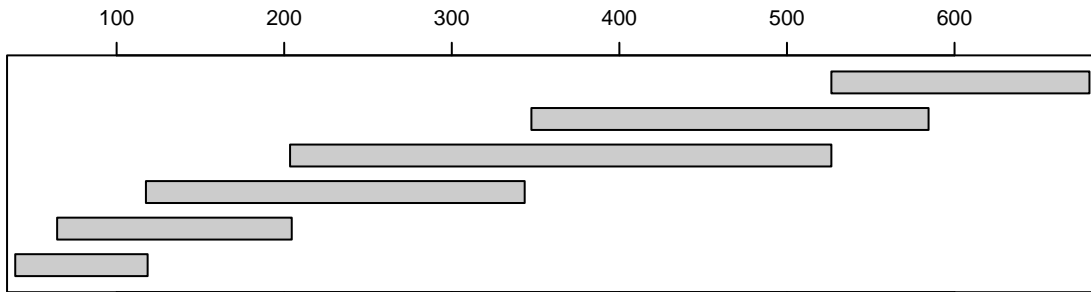
[help\("contour"\)](#)



help("contour")

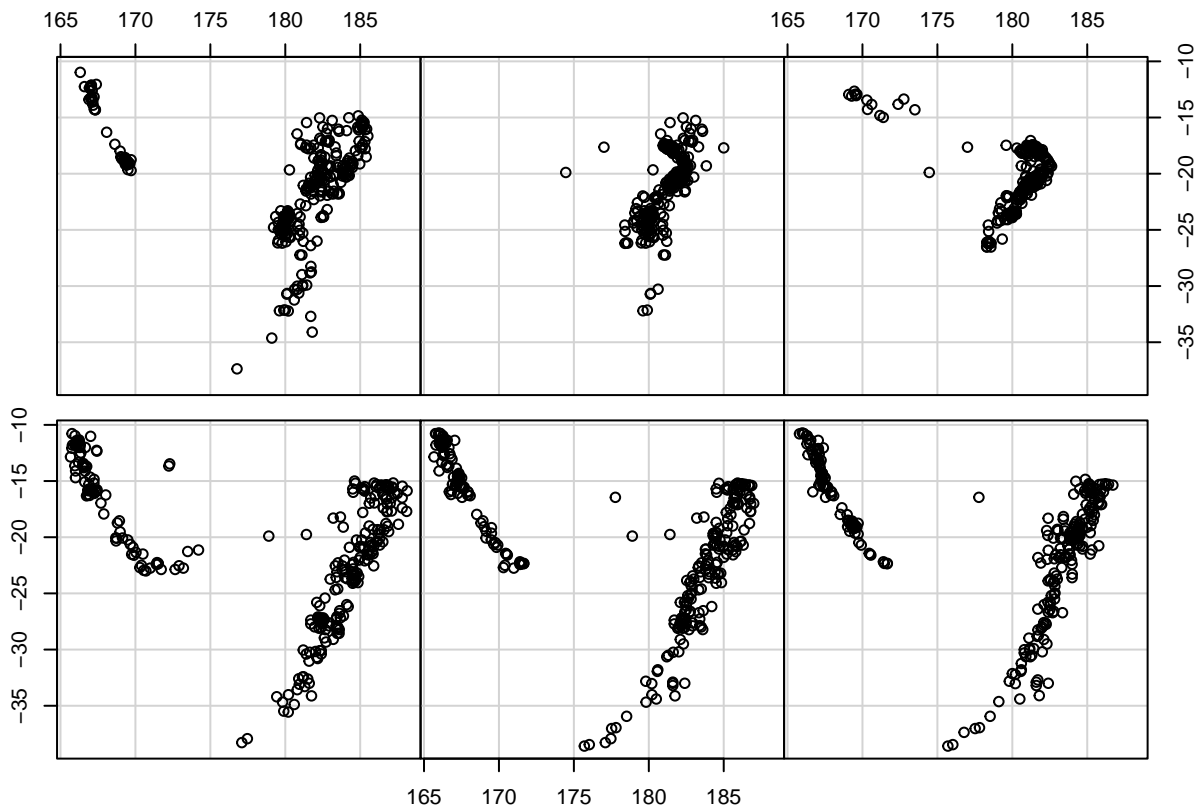


Given : depth



`help("coplot")`

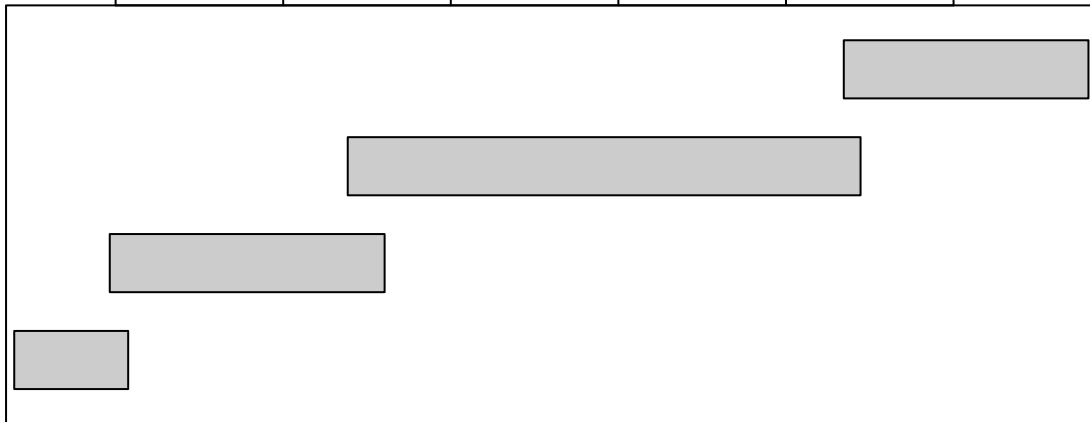
lat



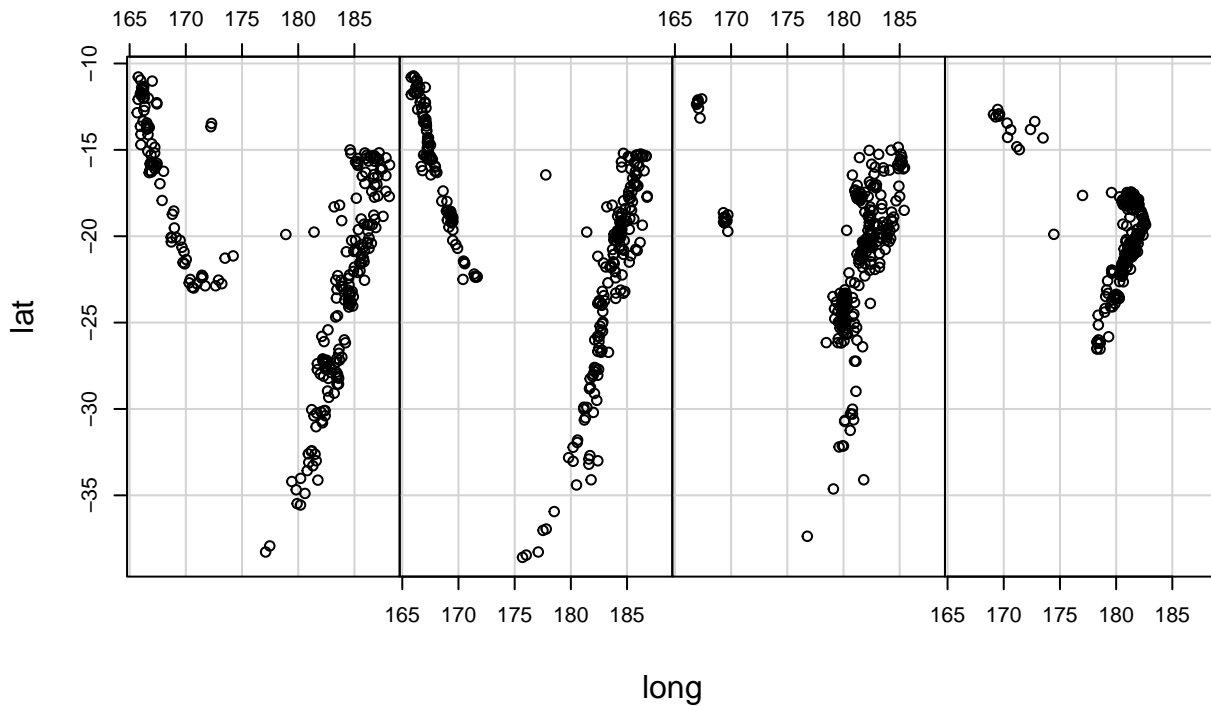
long

Given : depth

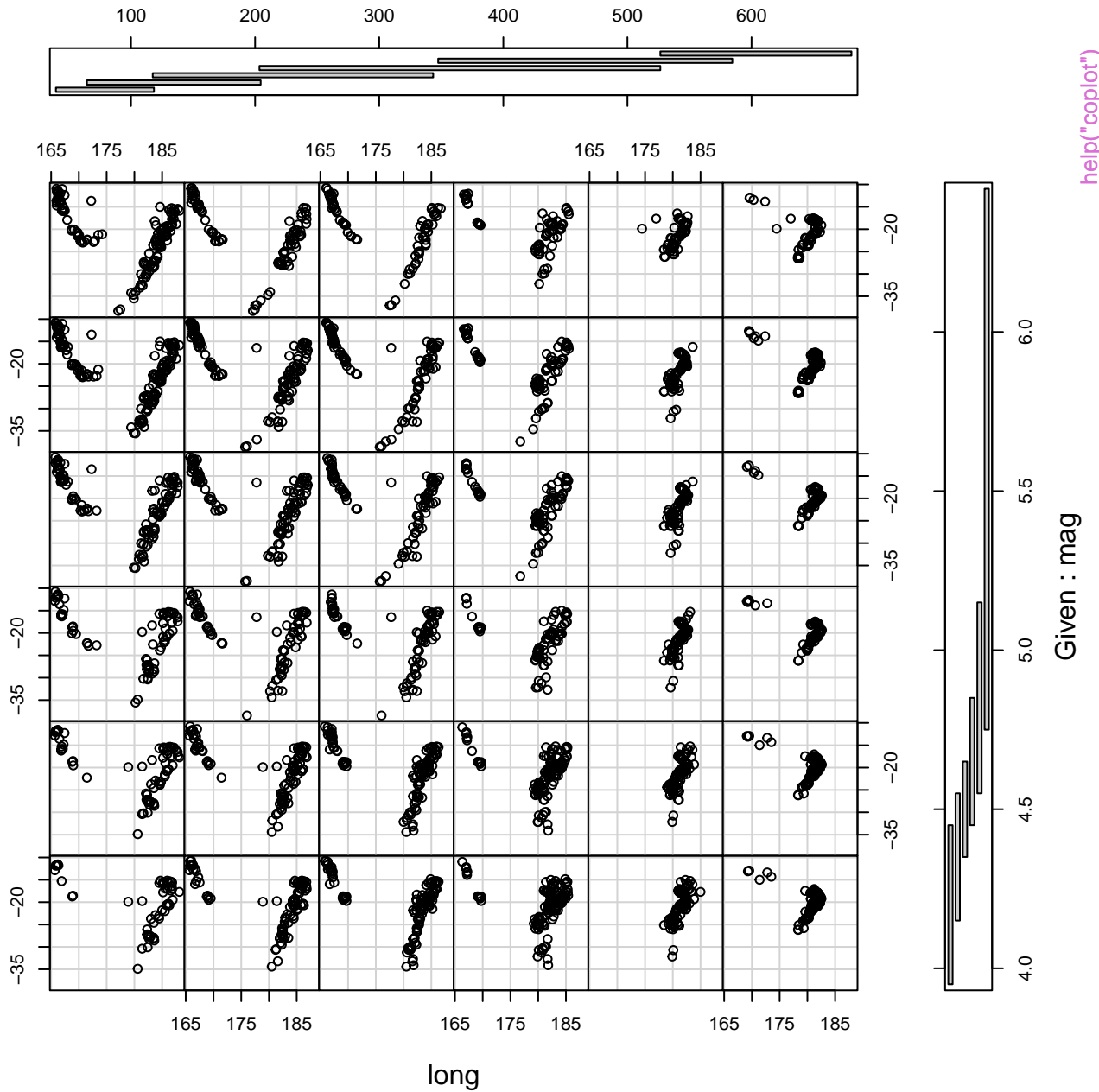
100 200 300 400 500 600



help("coplot")



Given : depth



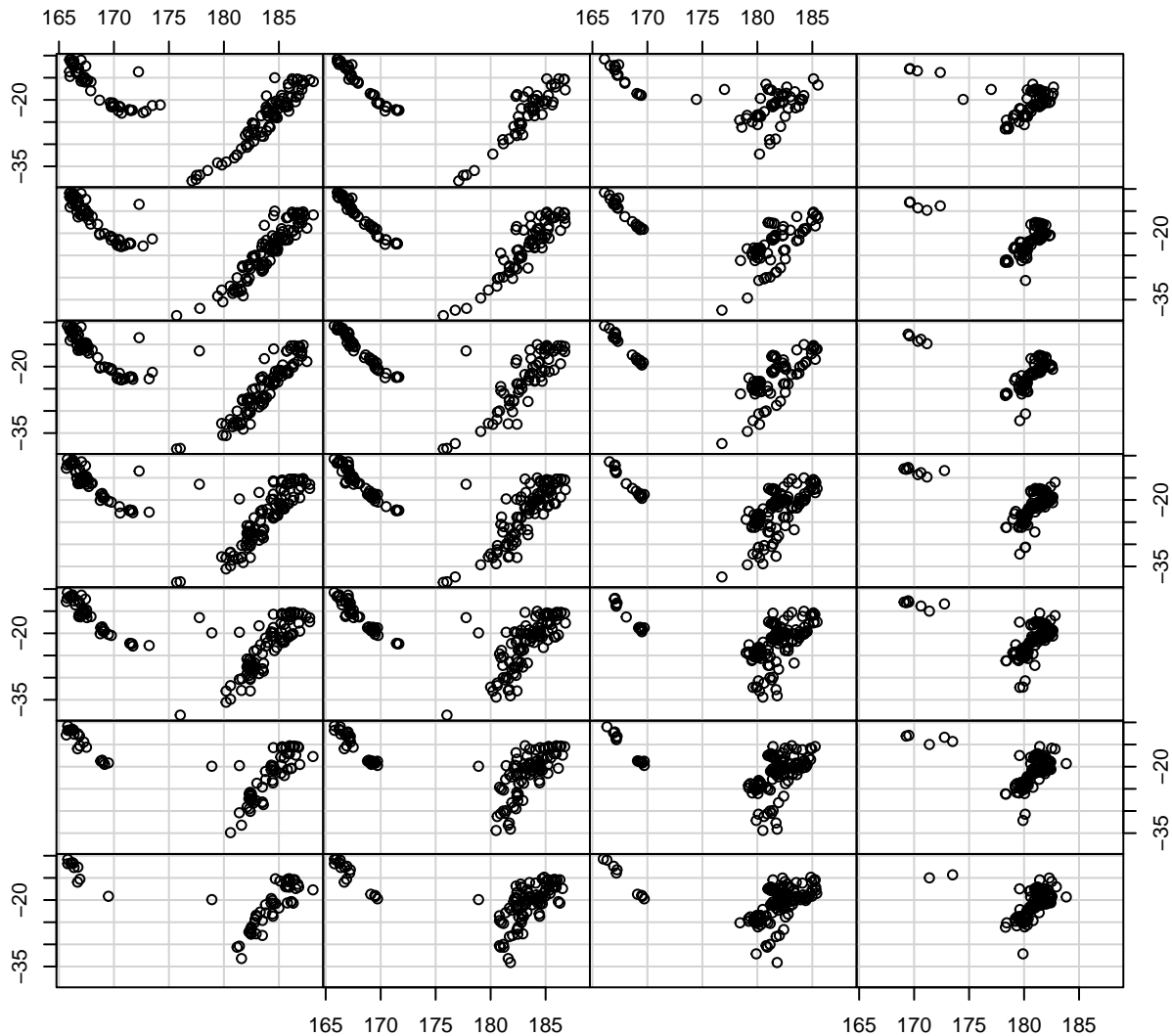
help("coplot")

Given : depth

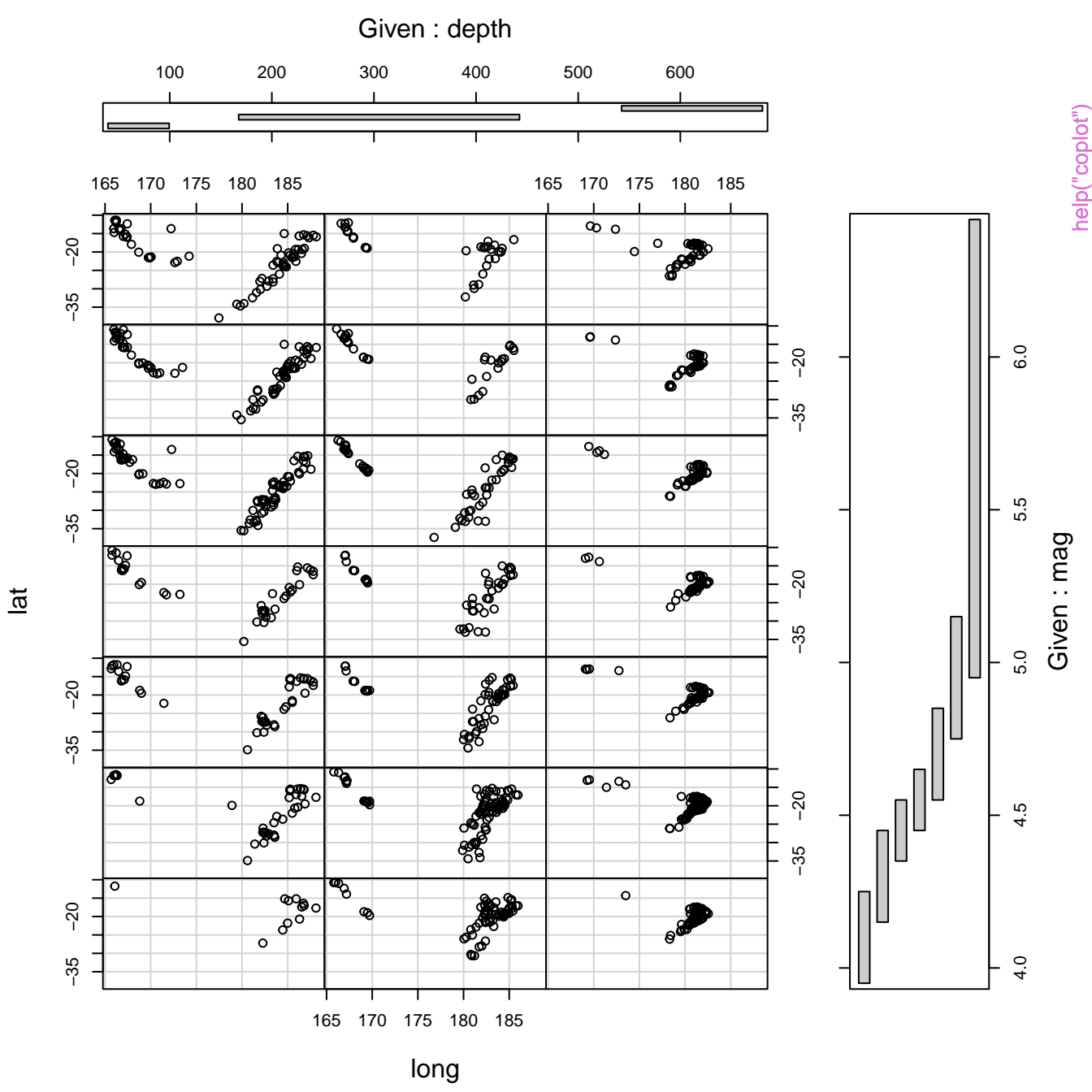
100 200 300 400 500 600

help("coplot")

lat

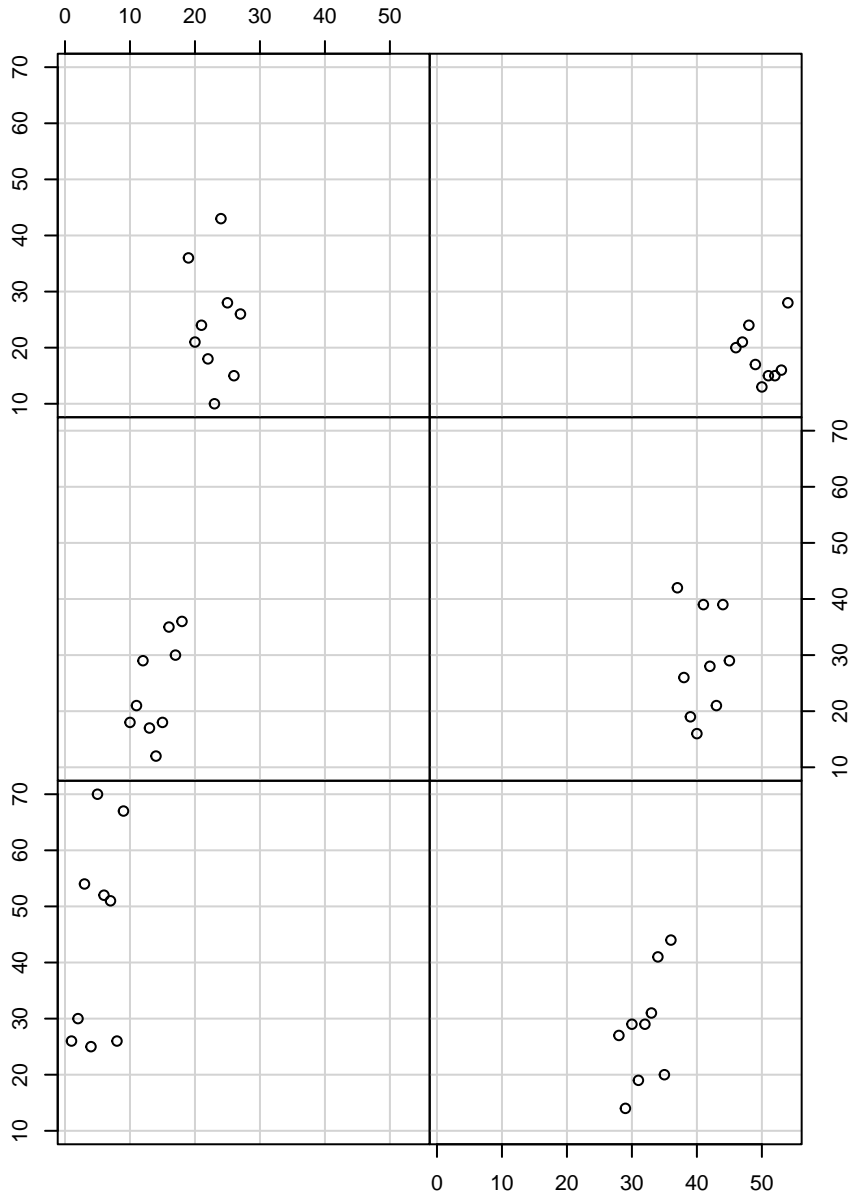


long



Given : wool

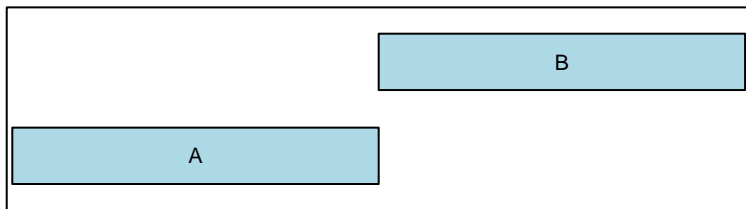
breaks



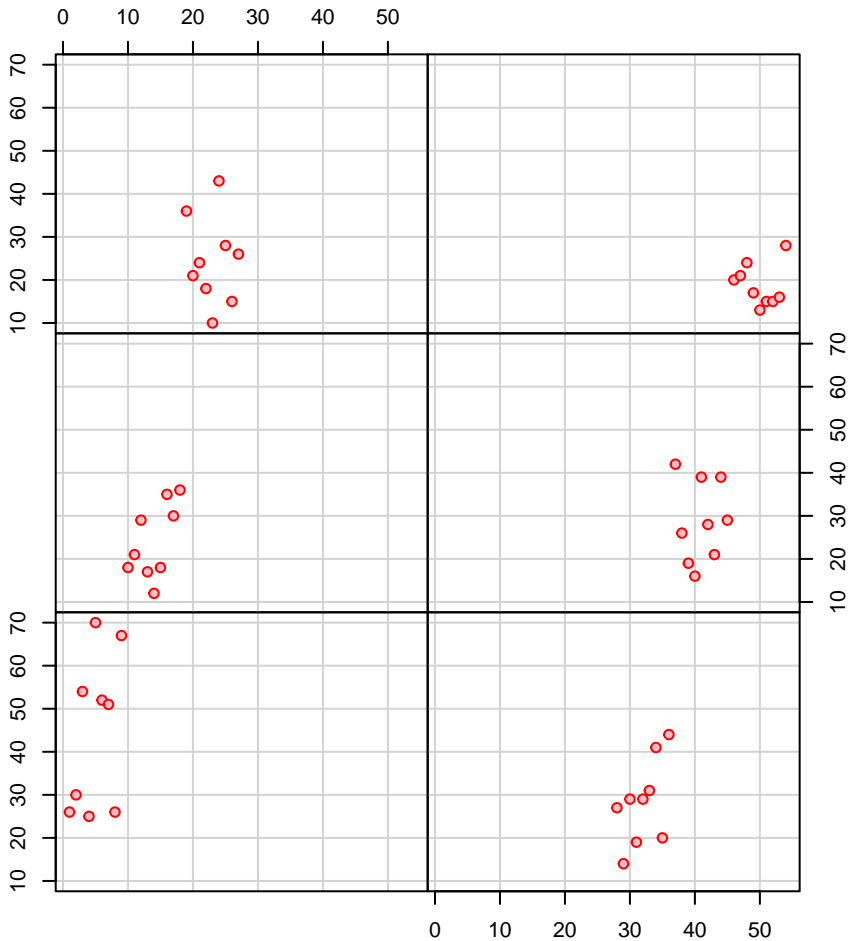
Given : tension

help("coplot")

Given : wool

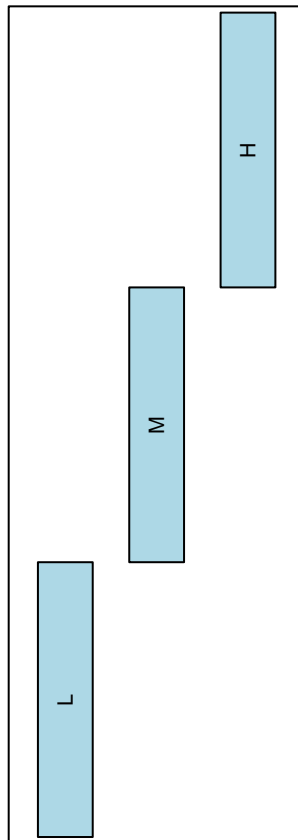


breaks



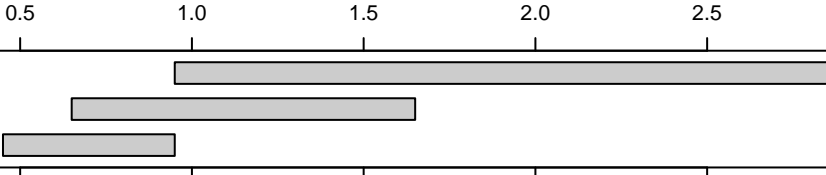
Index

Given : tension

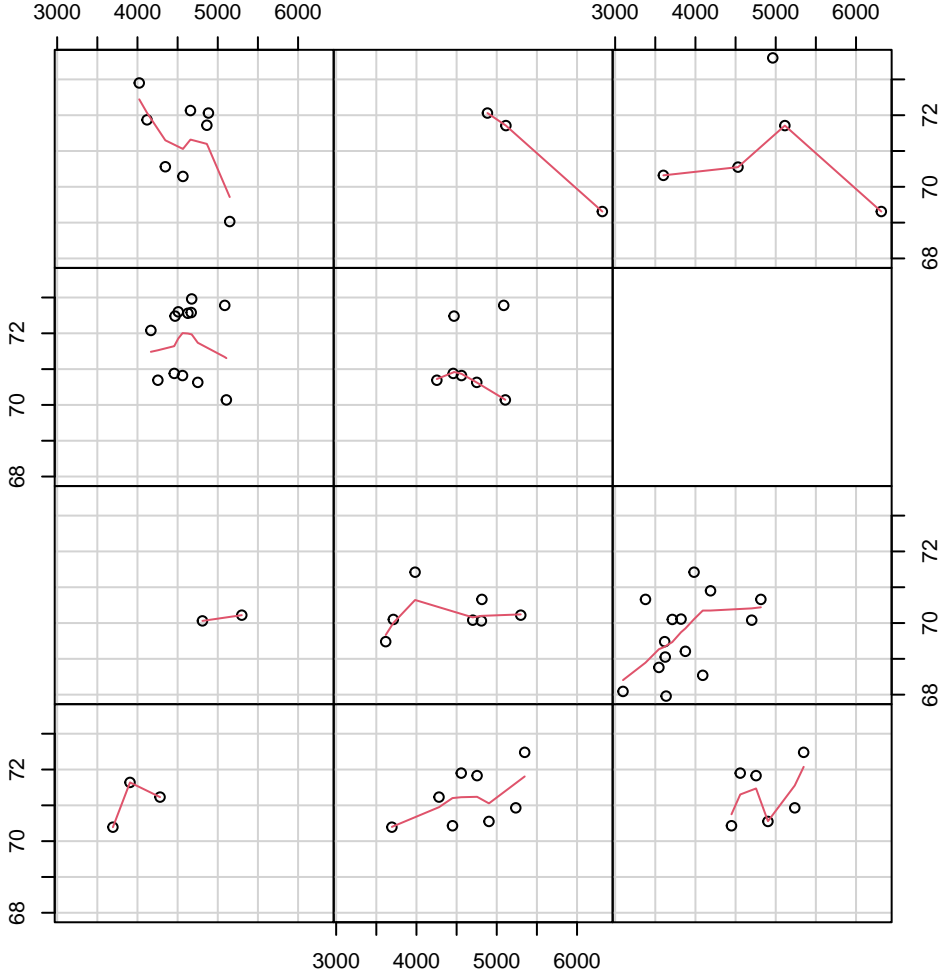


help("coplot")

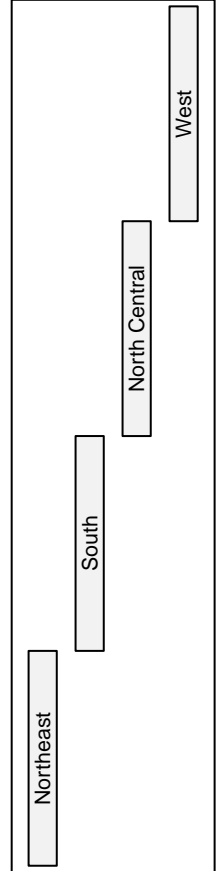
Given : Illiteracy



Life.Exp

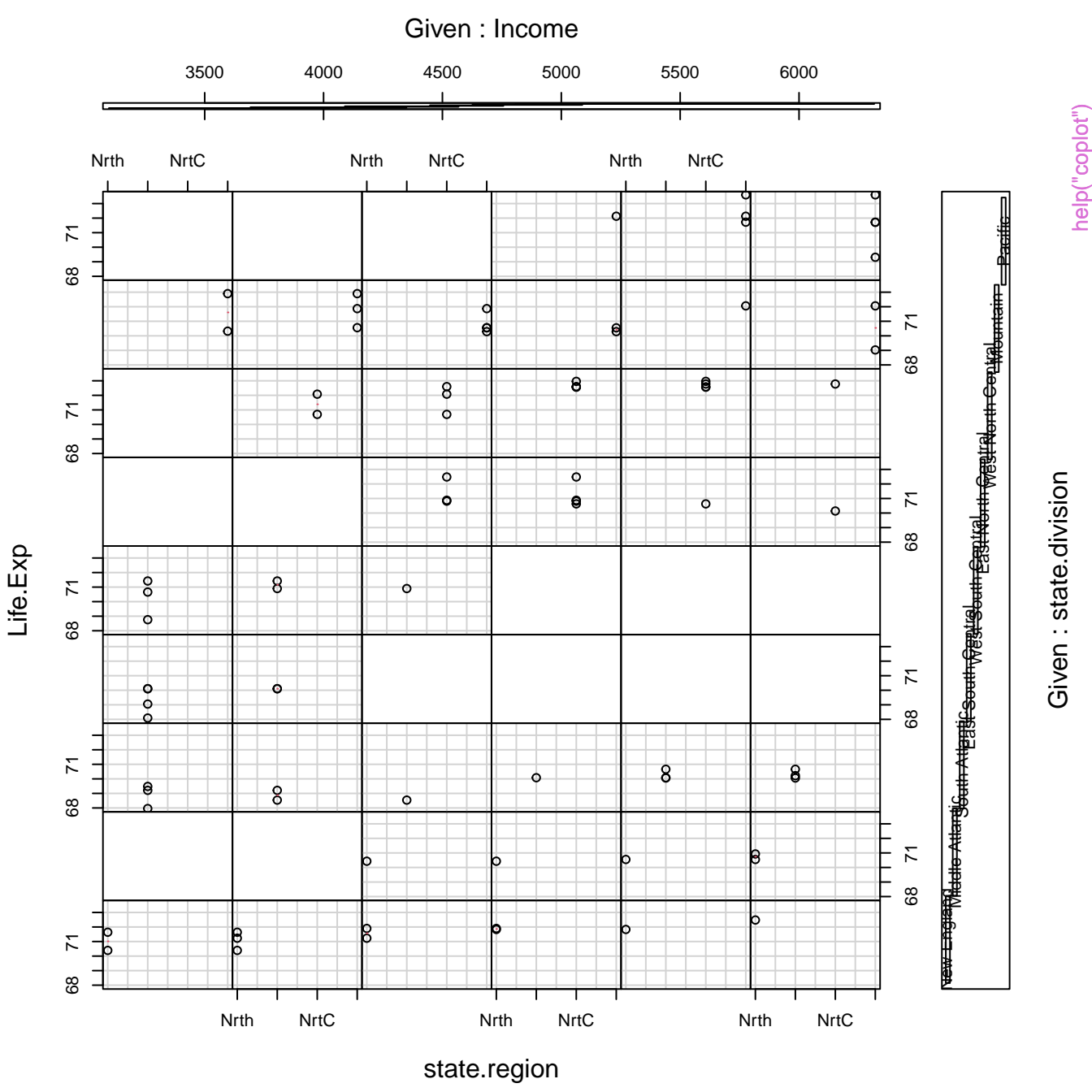


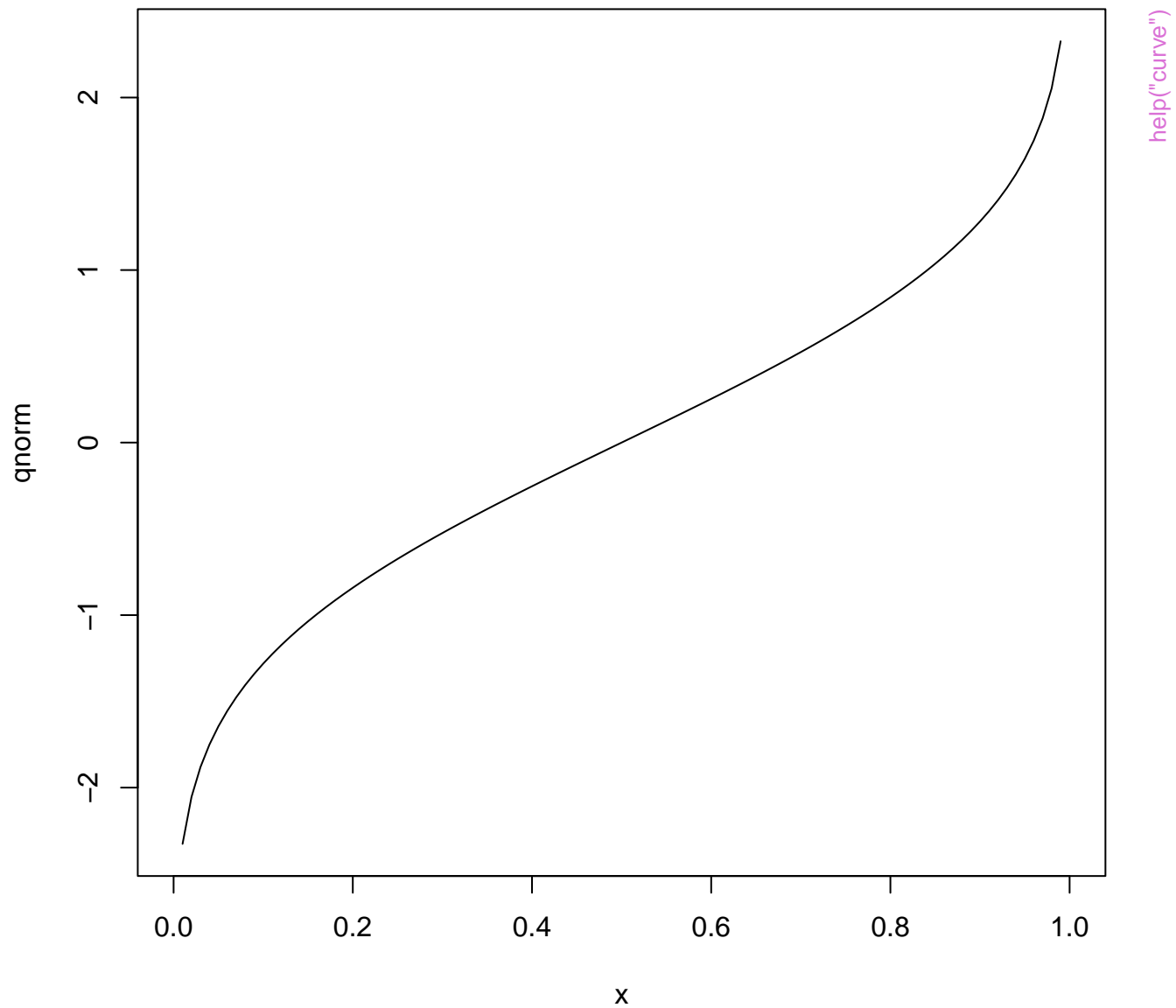
Income



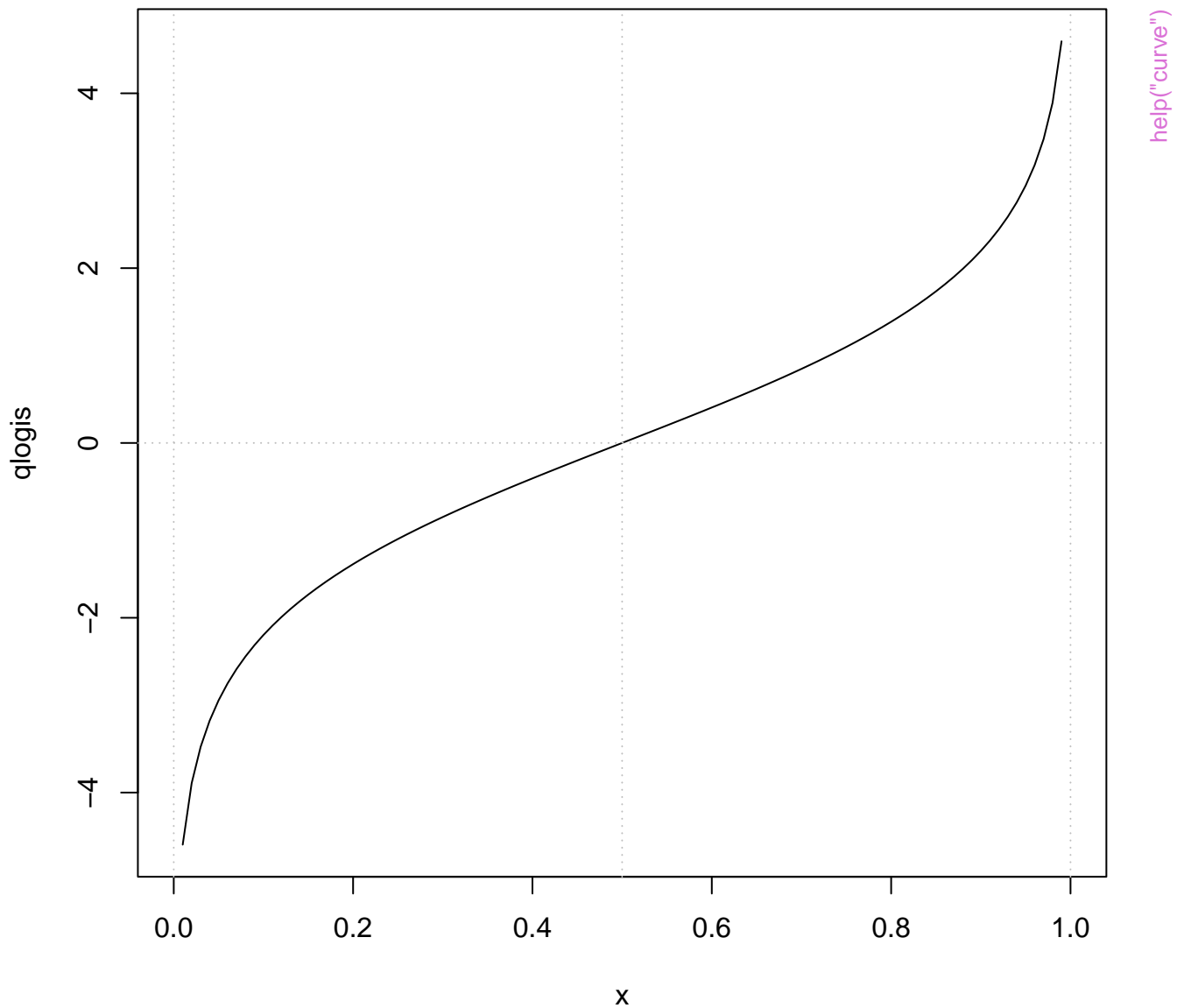
Given : state.region

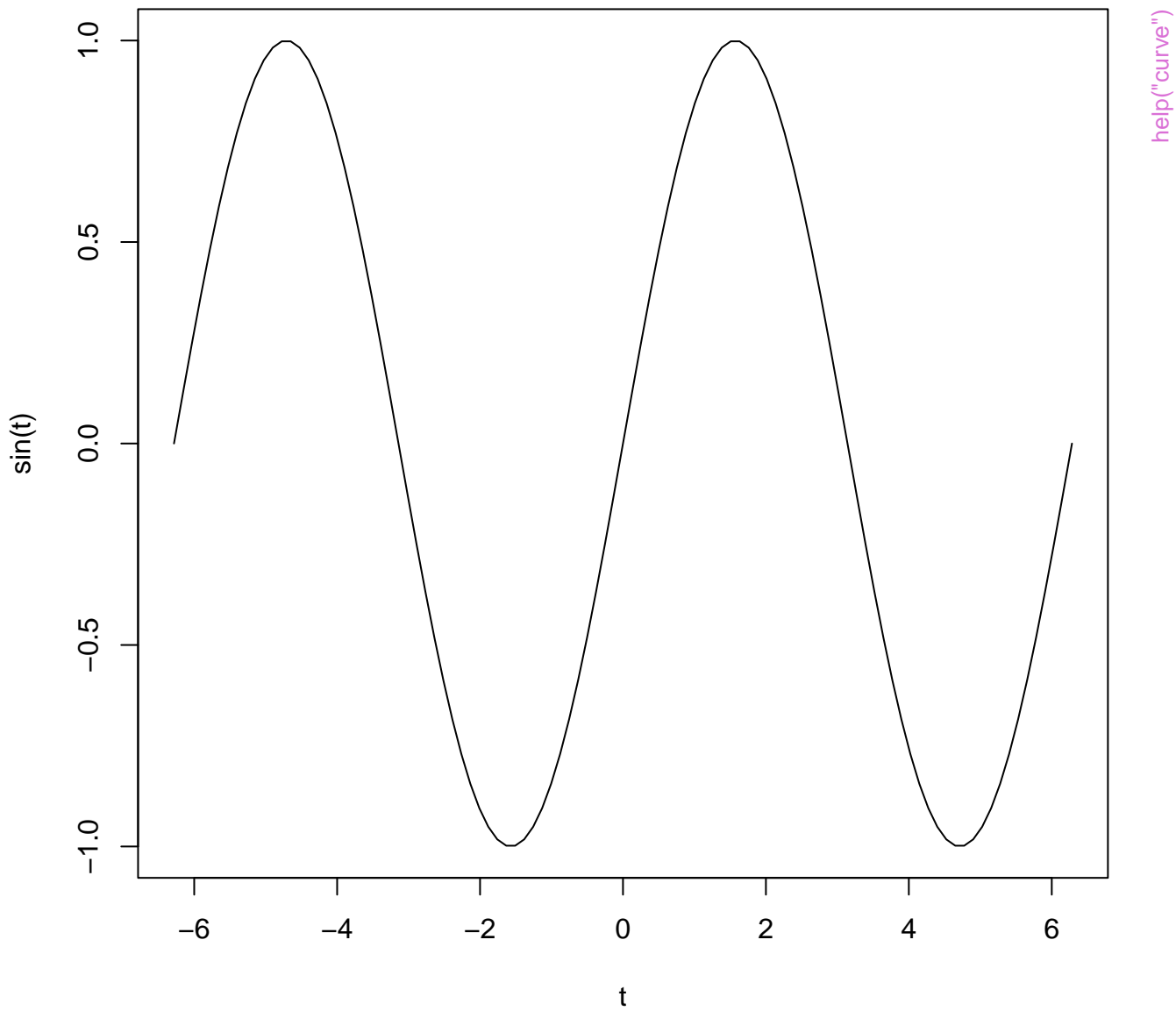
`help("coplot")`



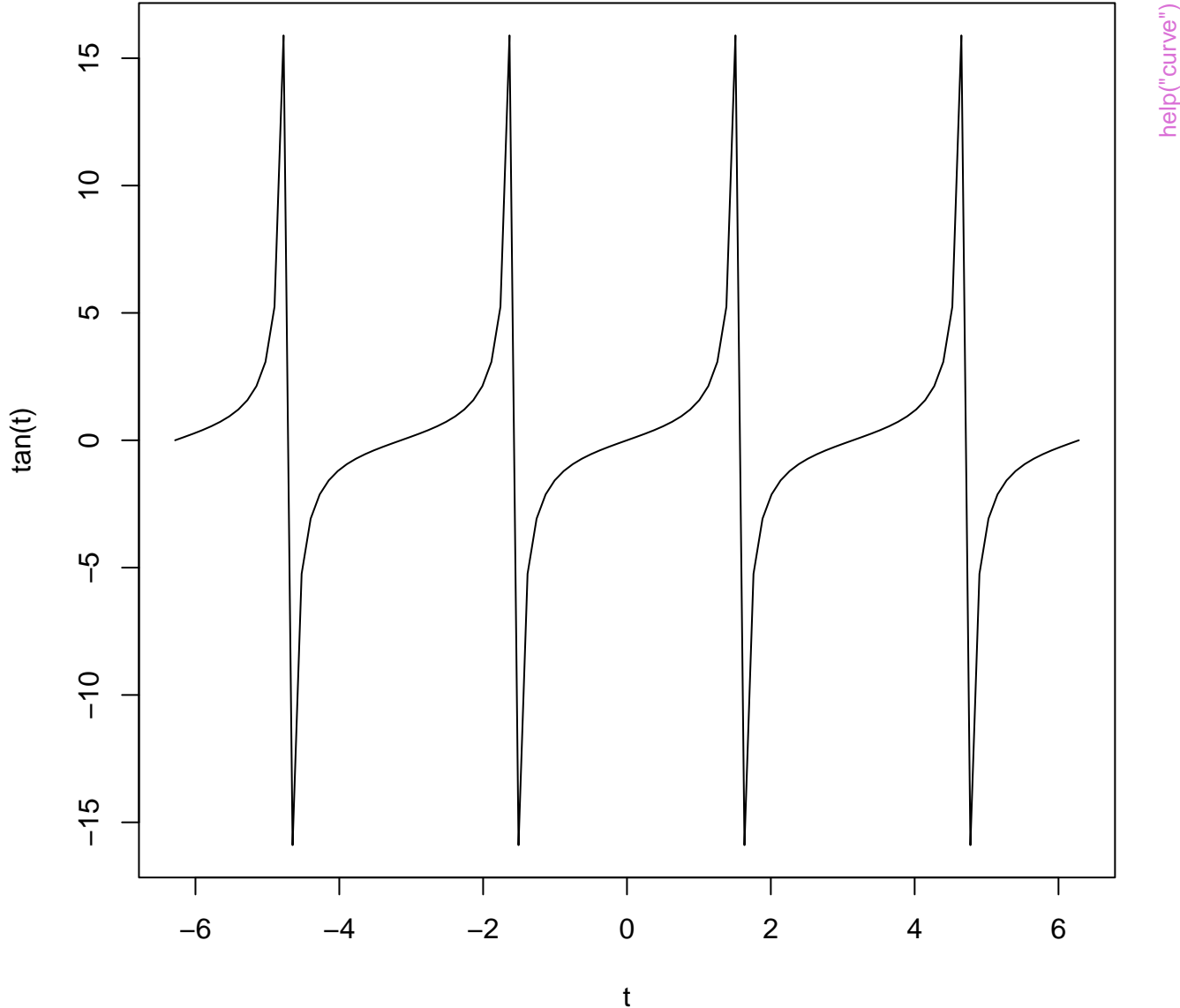


The Inverse Logit : `qlogis()`

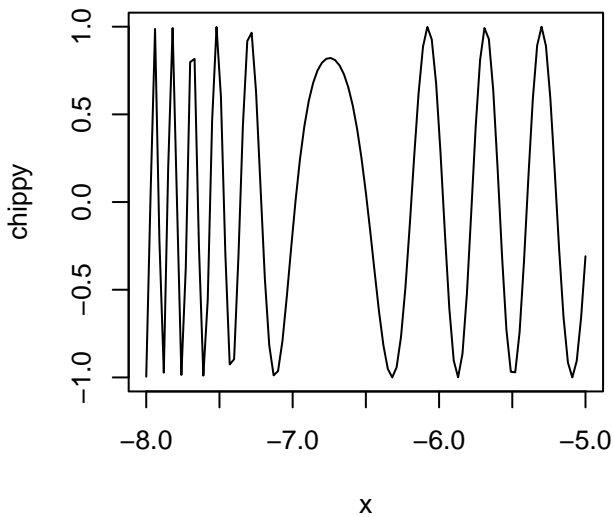
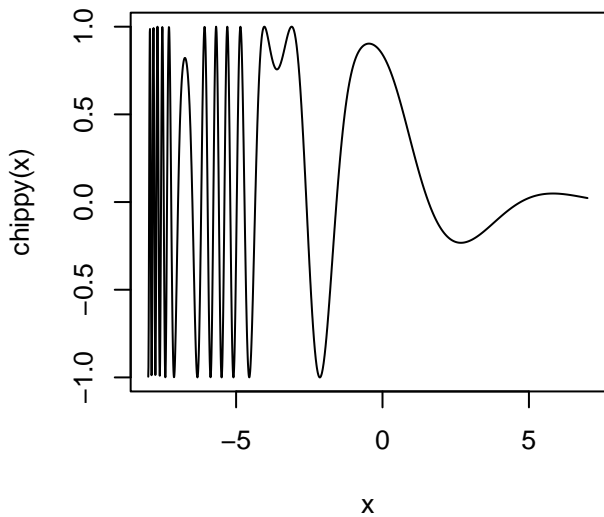
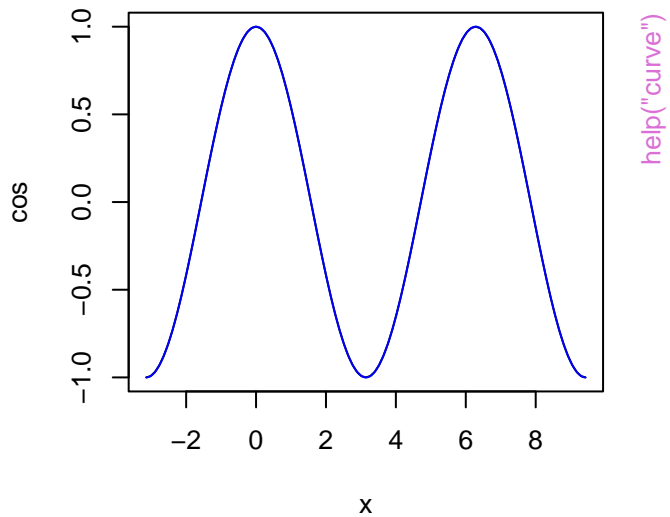
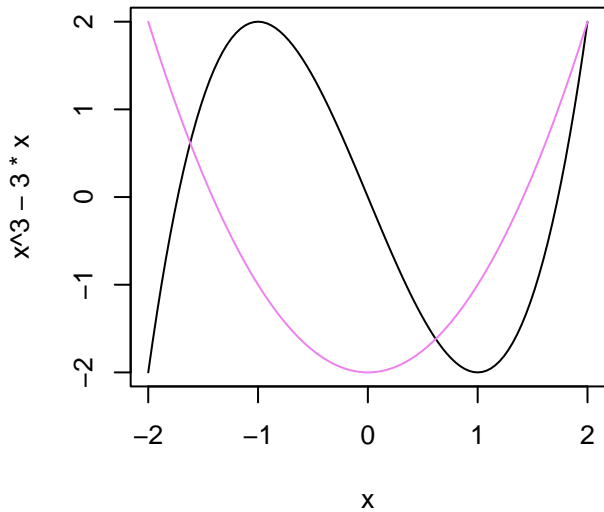


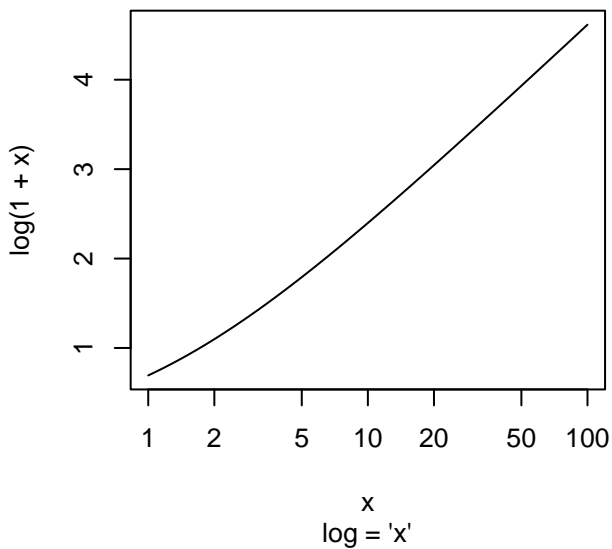
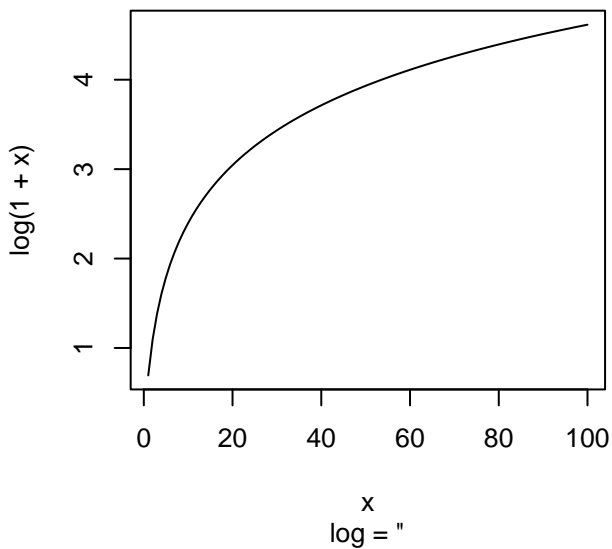


curve(tan) --> same x-scale as previous plot

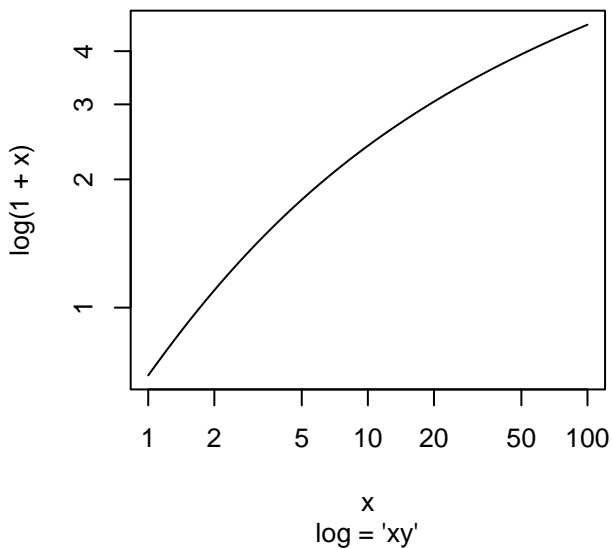
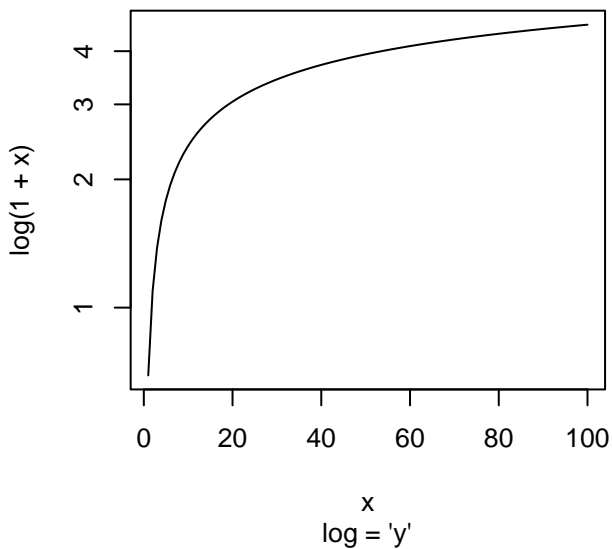


help("curve")





help("curve")



Death Rates in Virginia – 1940

Rural Male

70–74

65–69

60–64

55–59

50–54

Rural Female

70–74

65–69

60–64

55–59

50–54

Urban Male

70–74

65–69

60–64

55–59

50–54

Urban Female

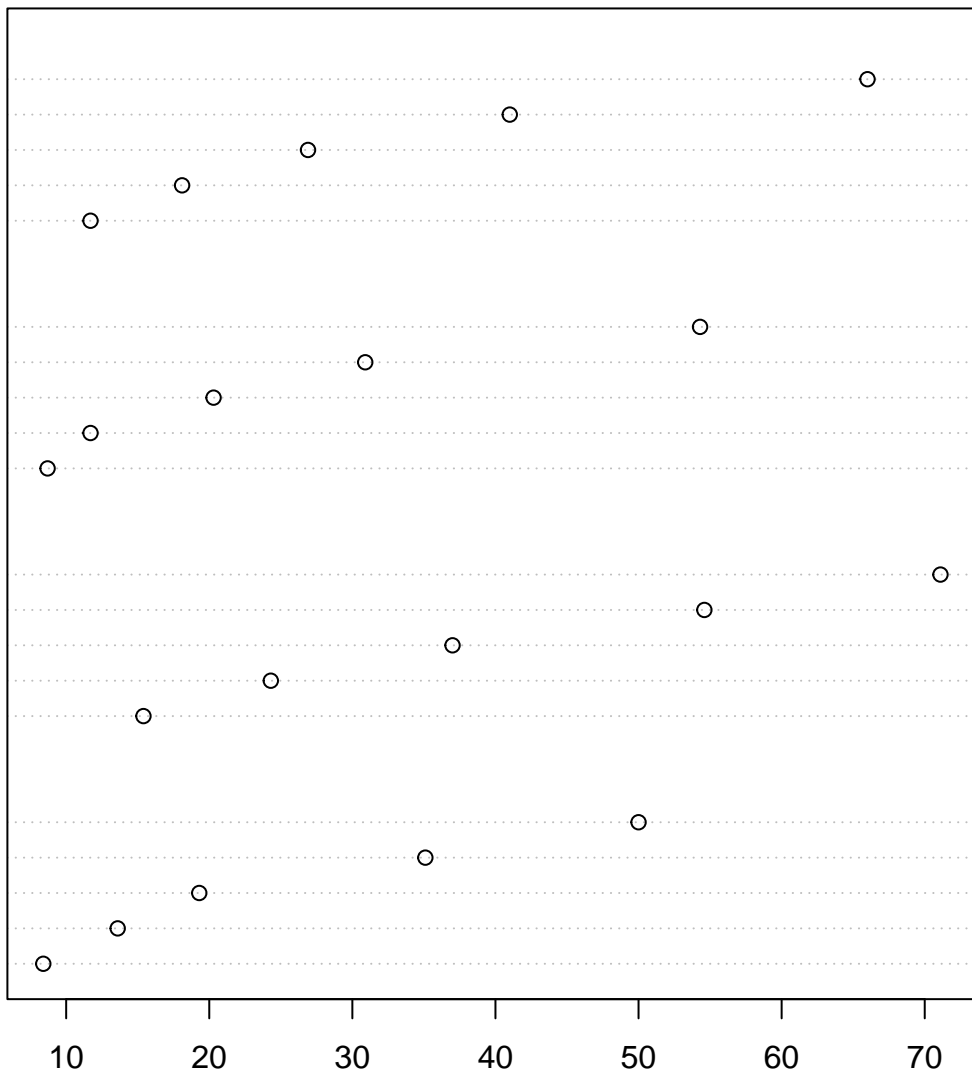
70–74

65–69

60–64

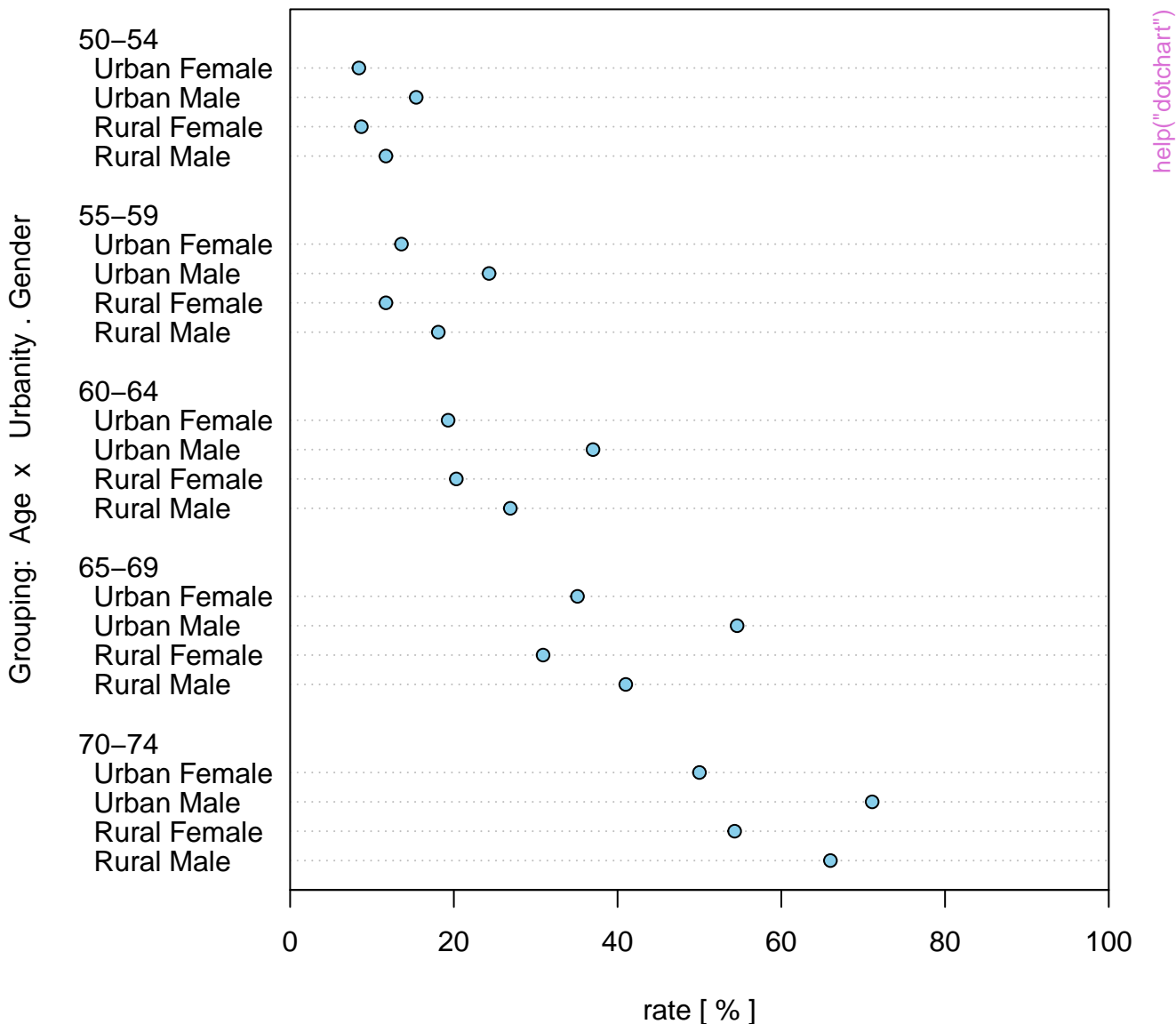
55–59

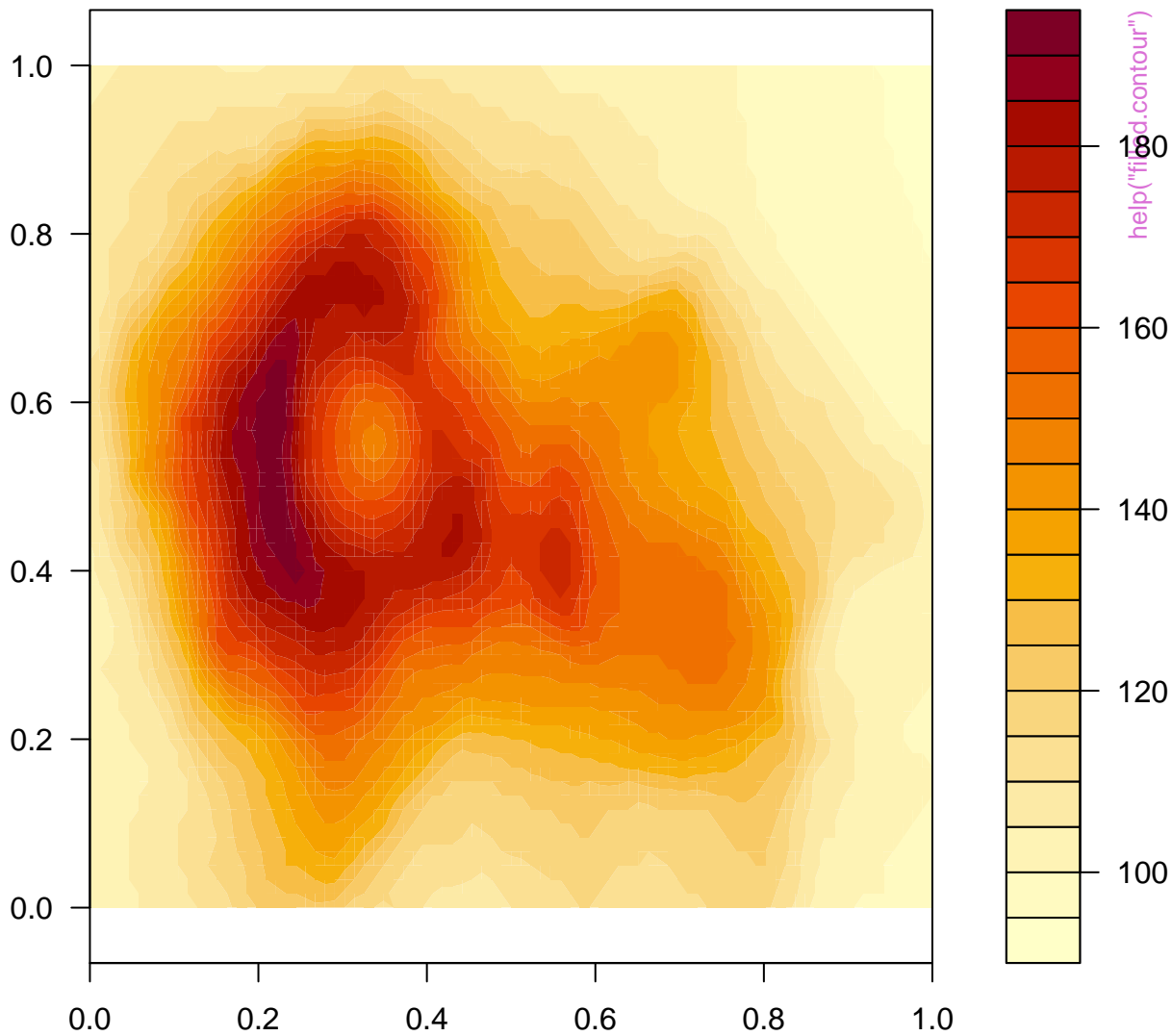
50–54



help("dotchart")

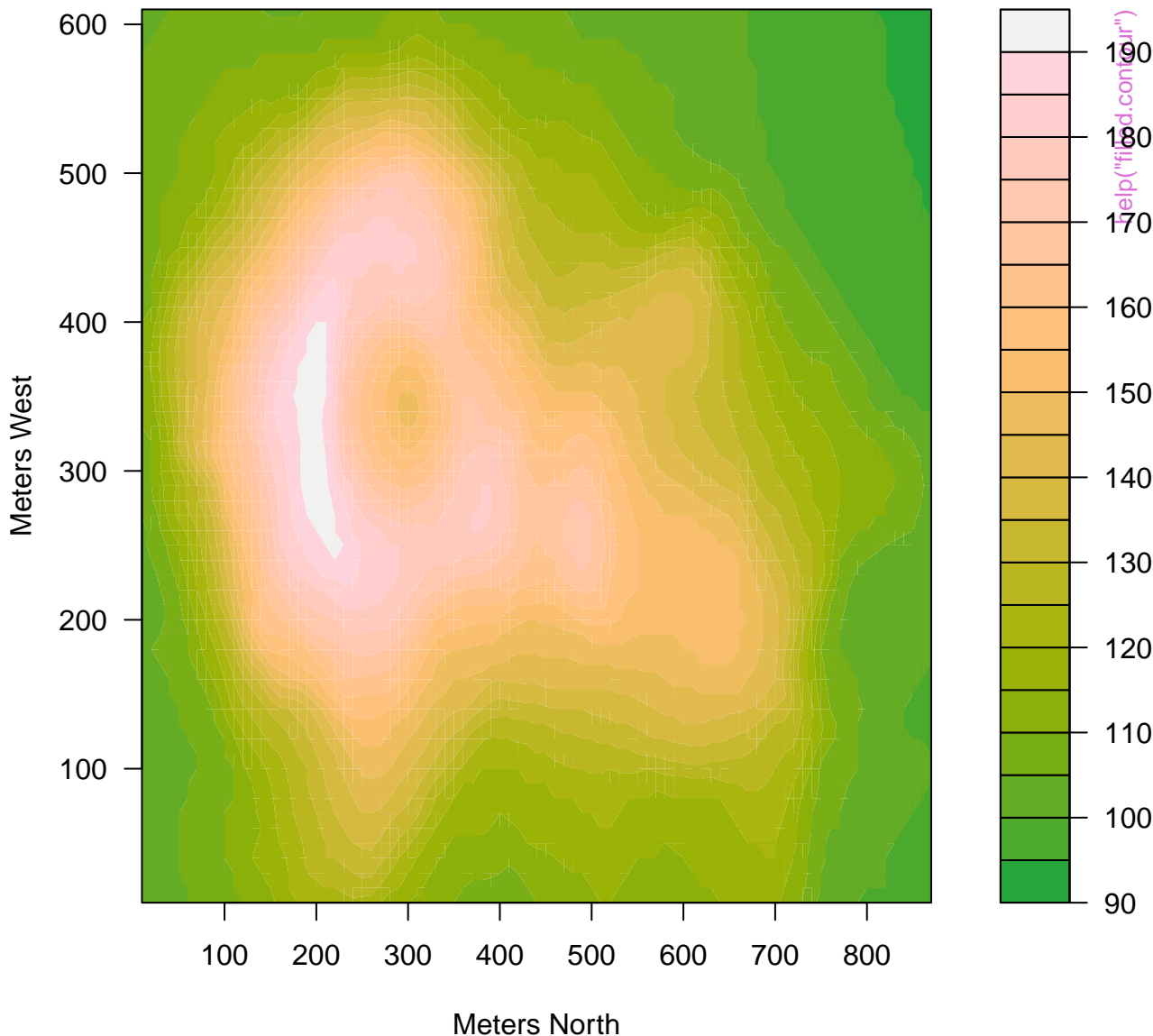
Death Rates in Virginia – 1940

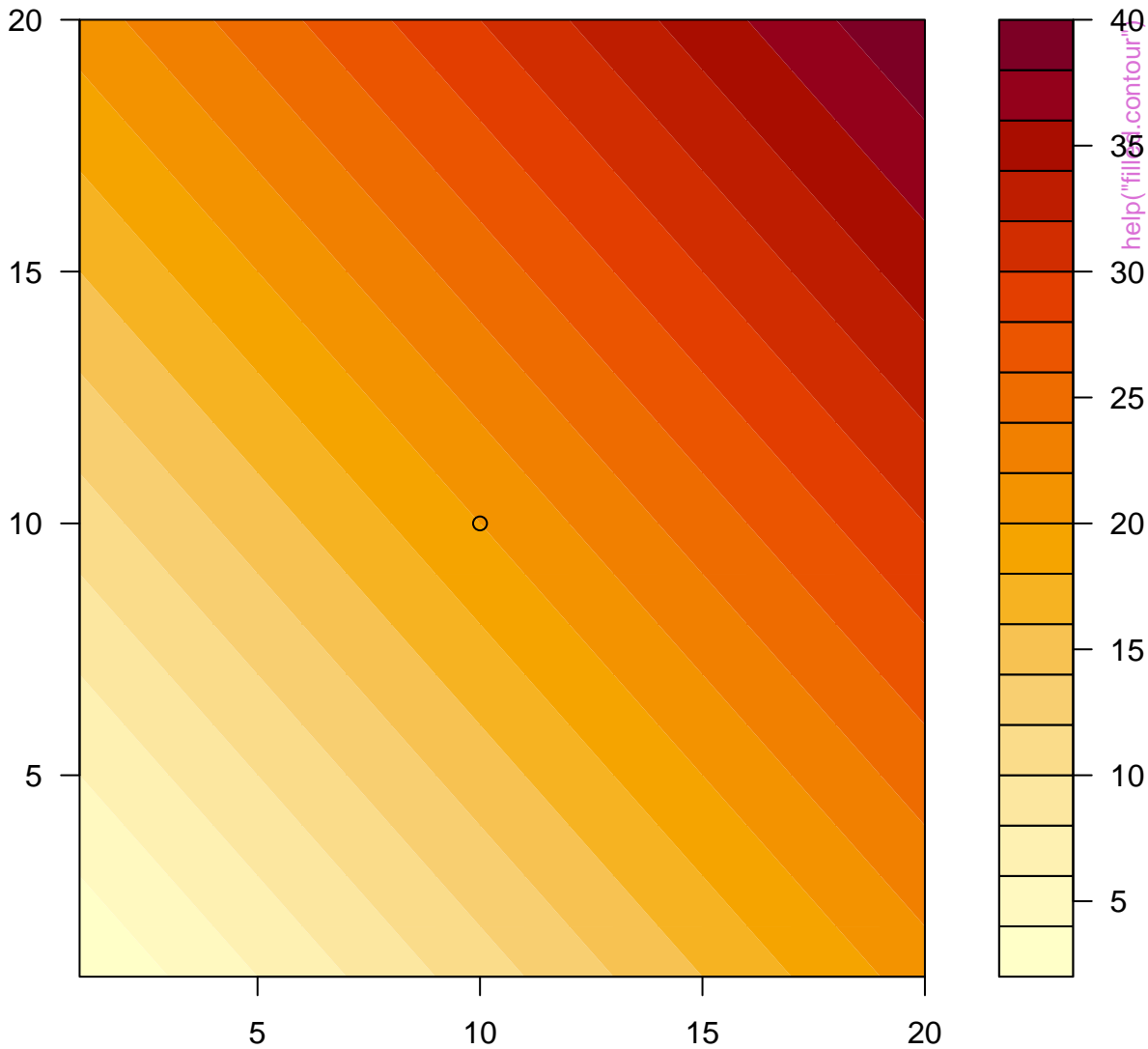


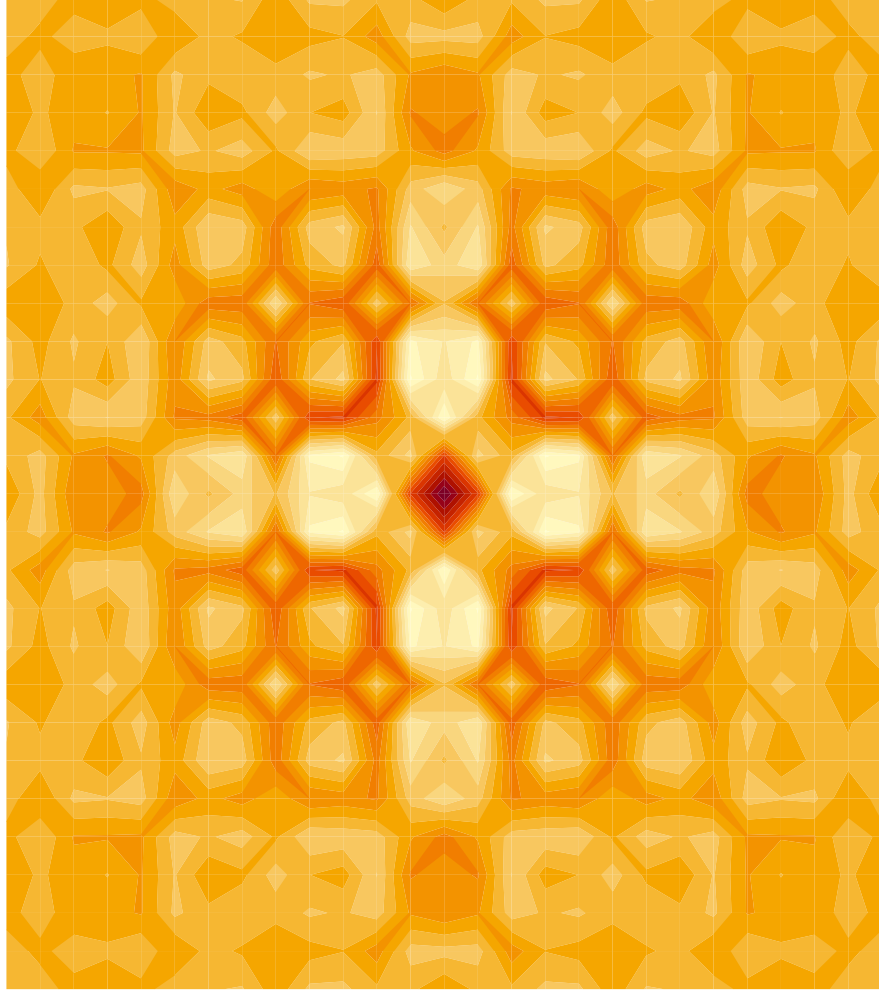


The Topography of Maunga Whau

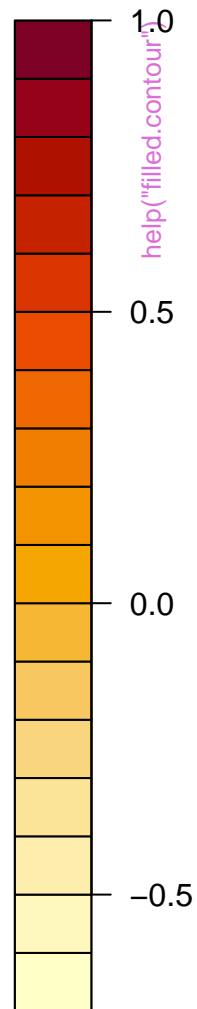
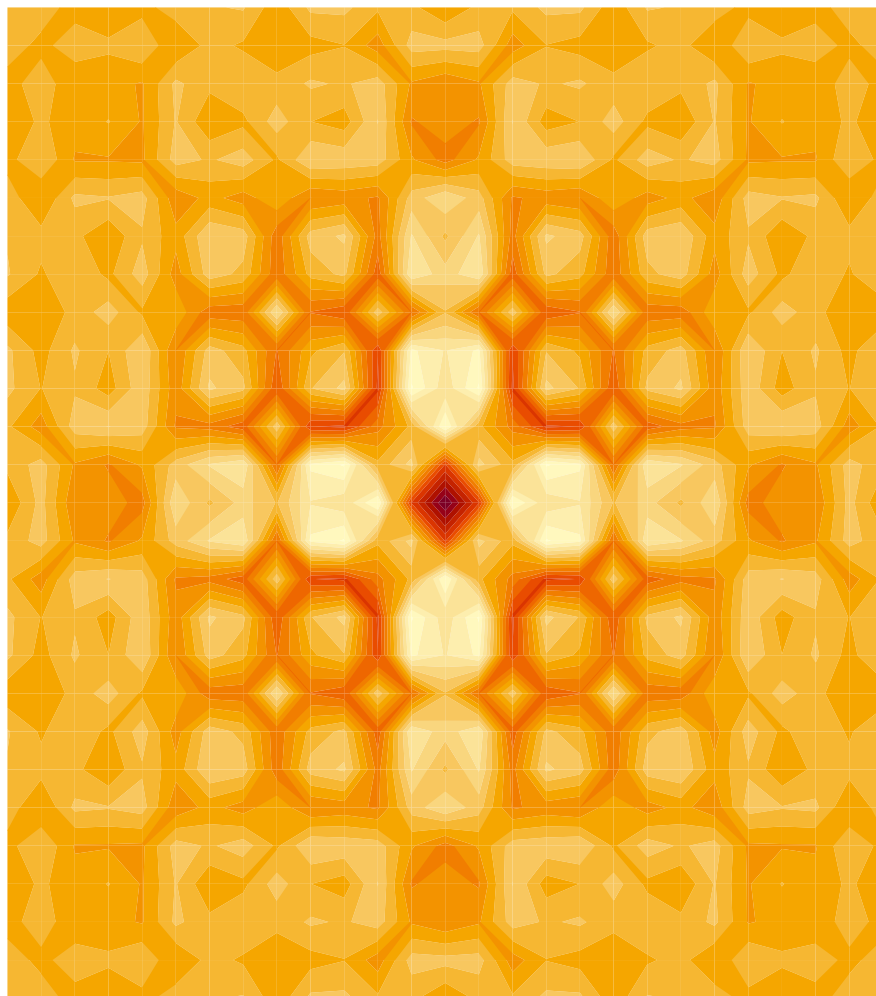
Height
(meters)







help("filled.contour")



Sex: Male

1198

1493

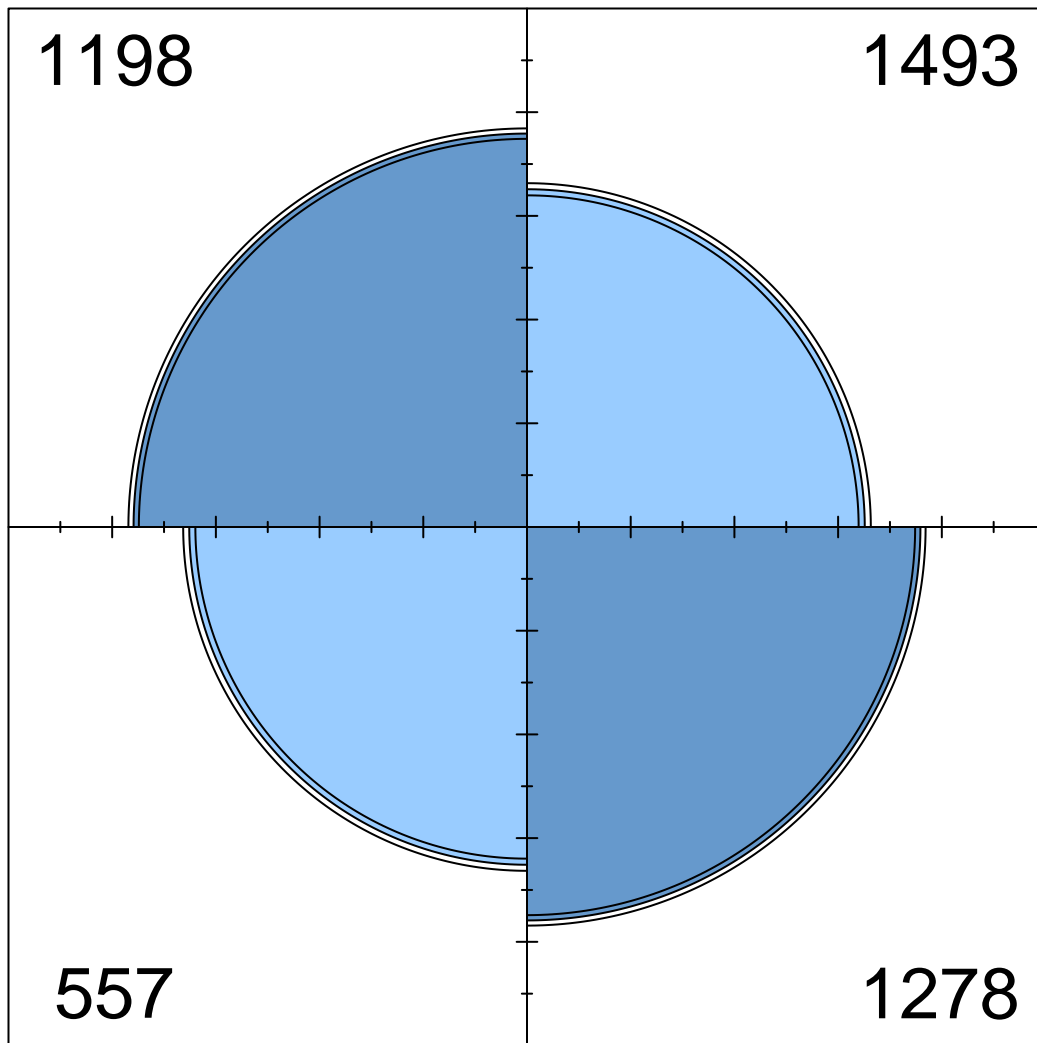
Admit?: Yes

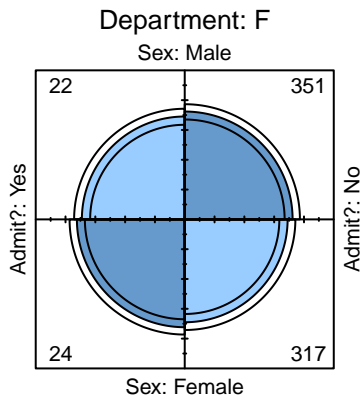
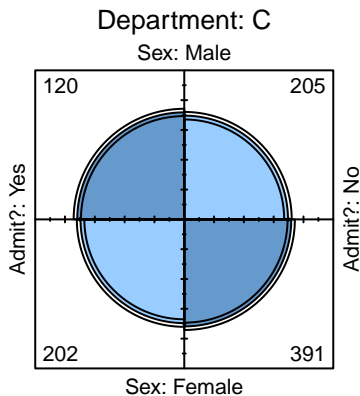
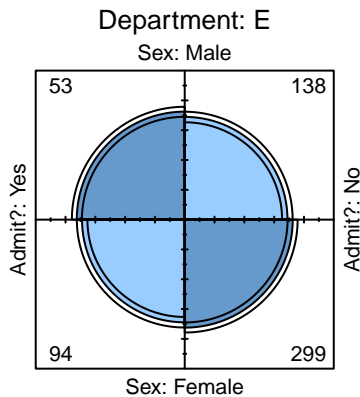
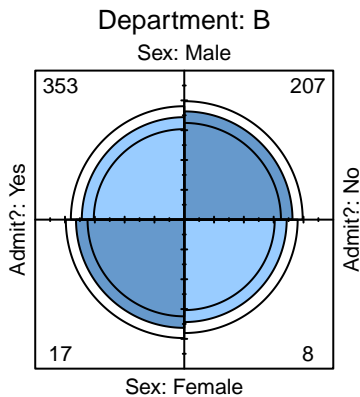
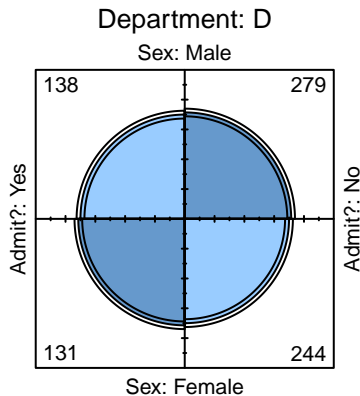
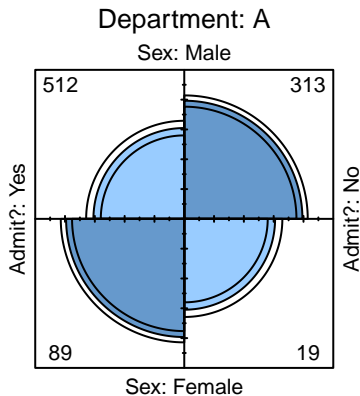
Admit?: No

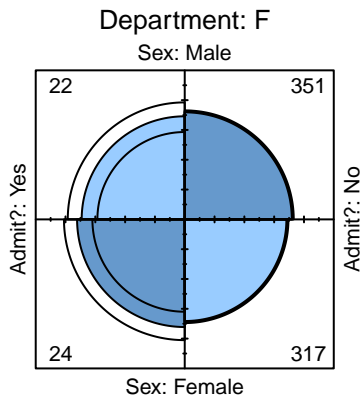
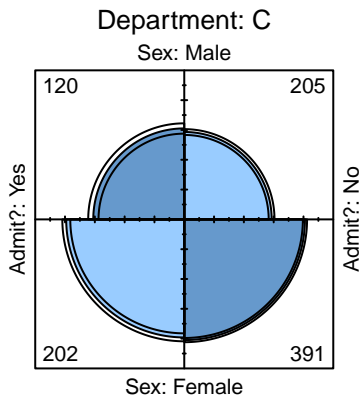
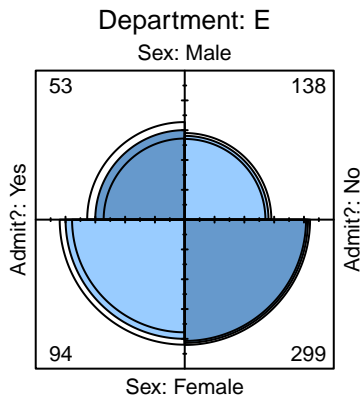
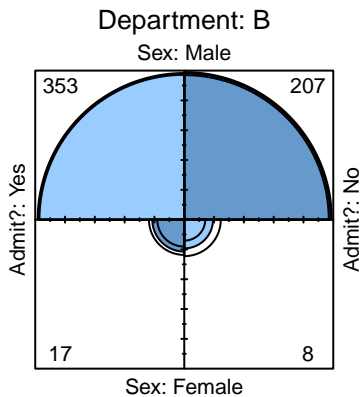
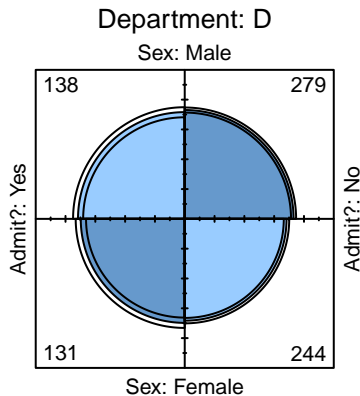
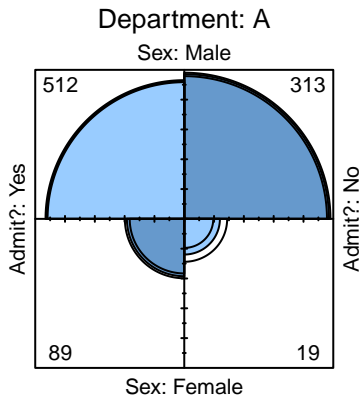
557

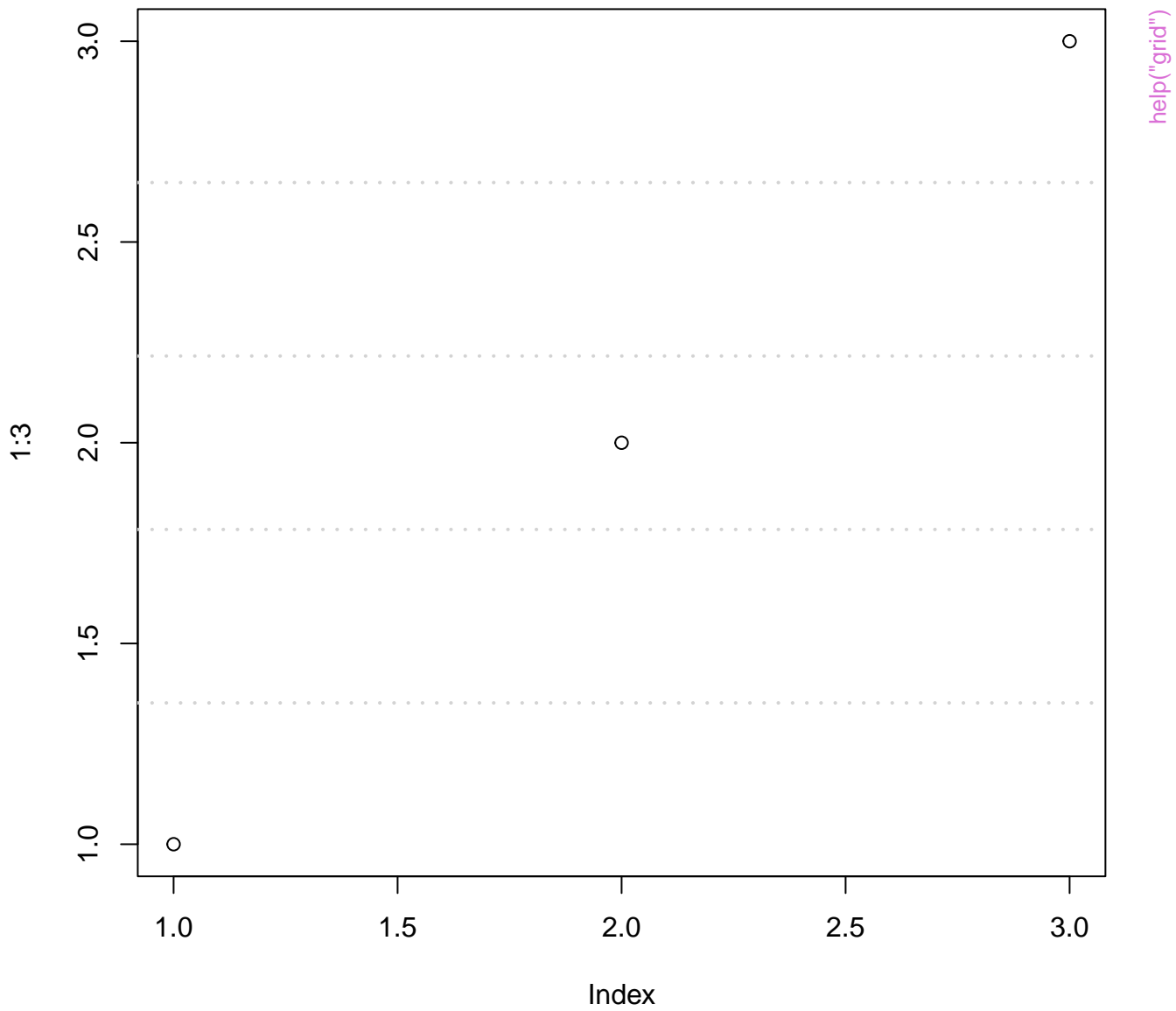
1278

Sex: Female

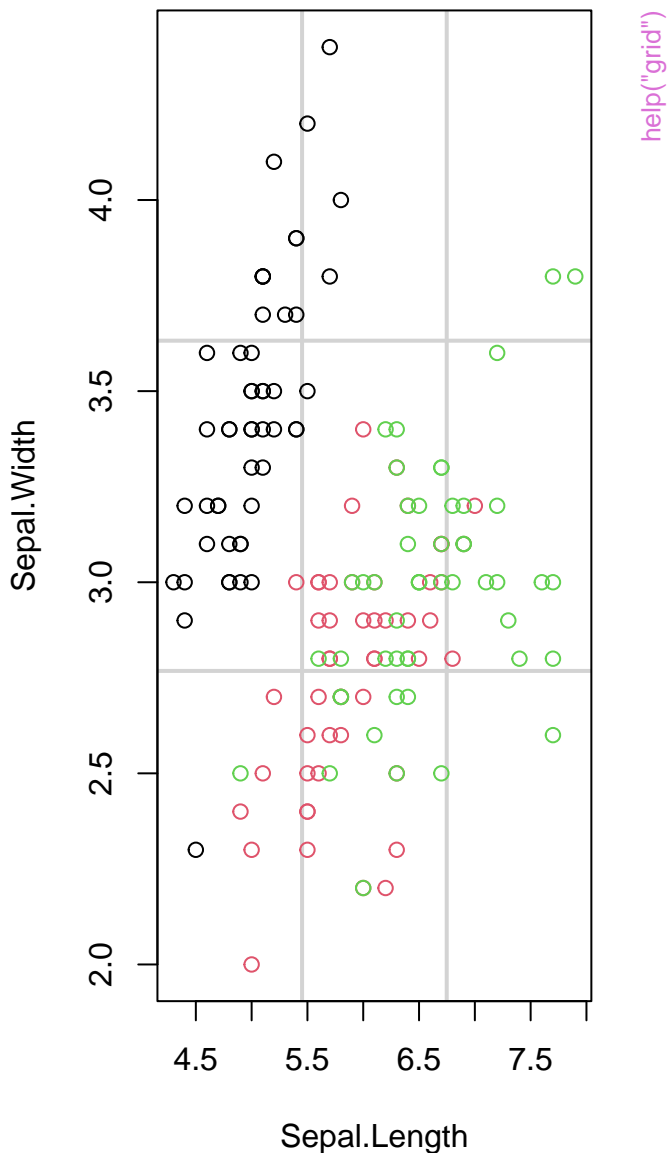
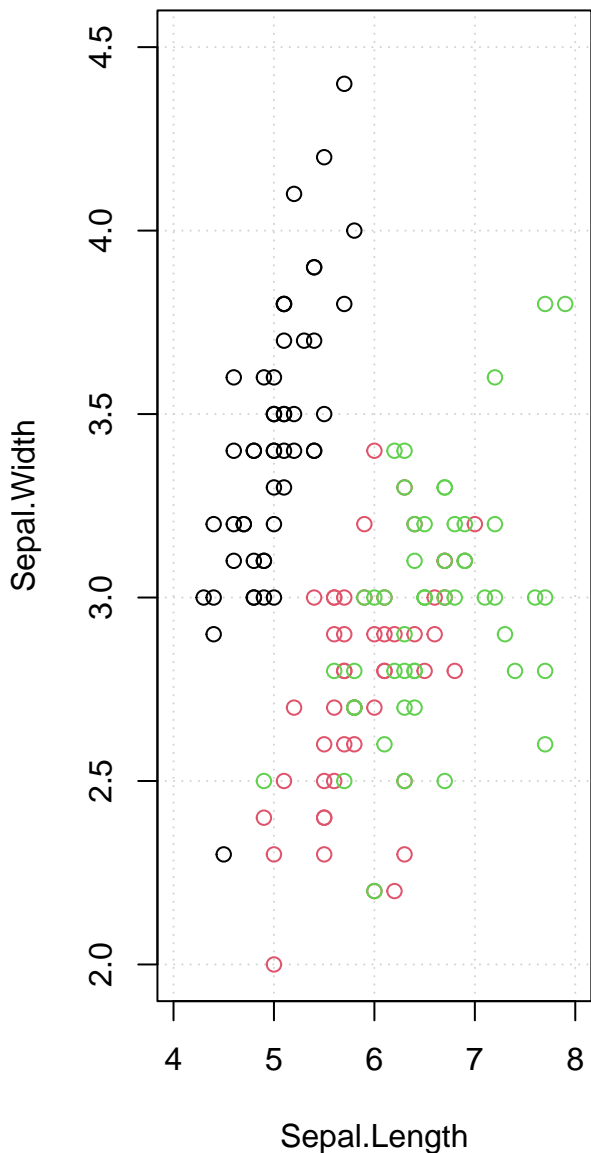




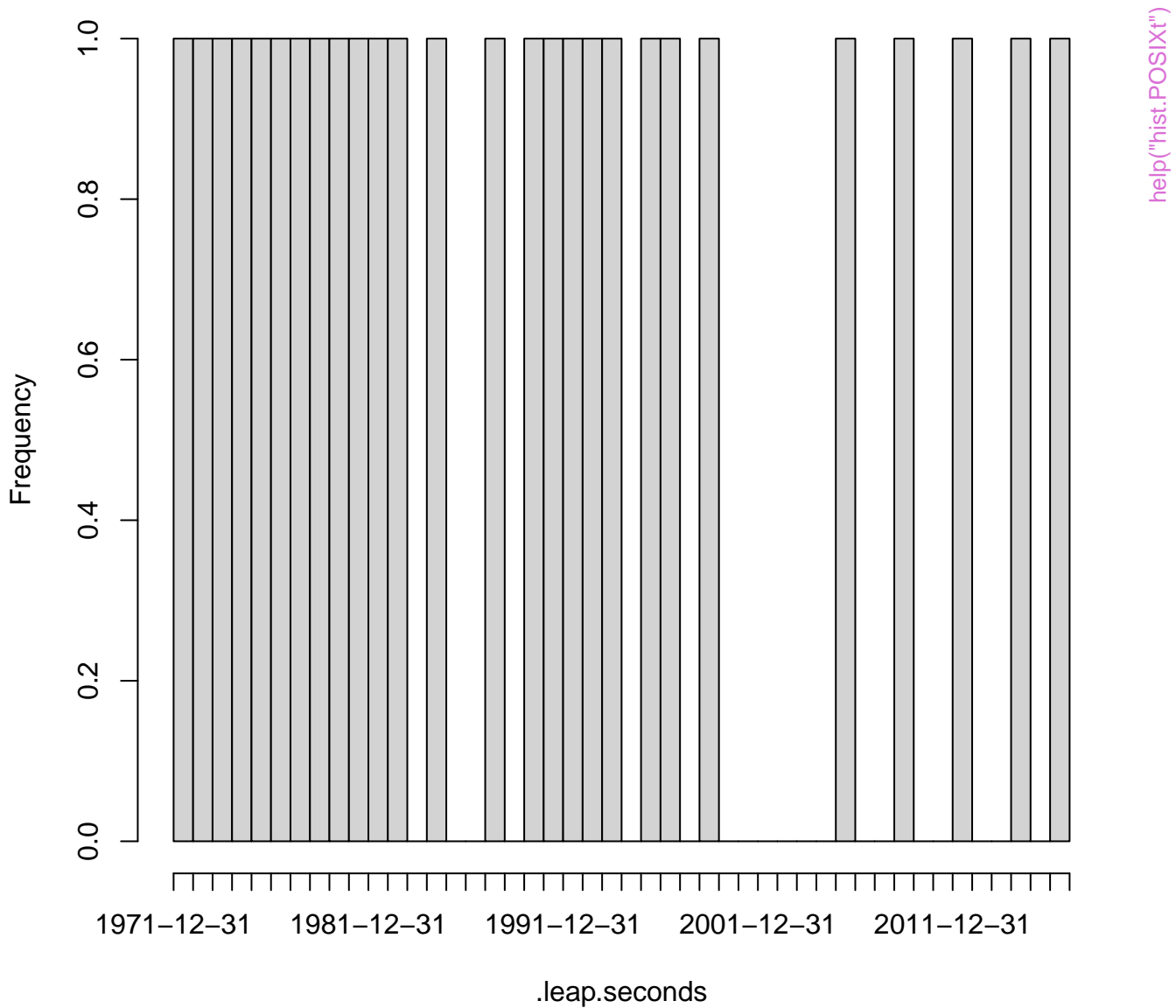




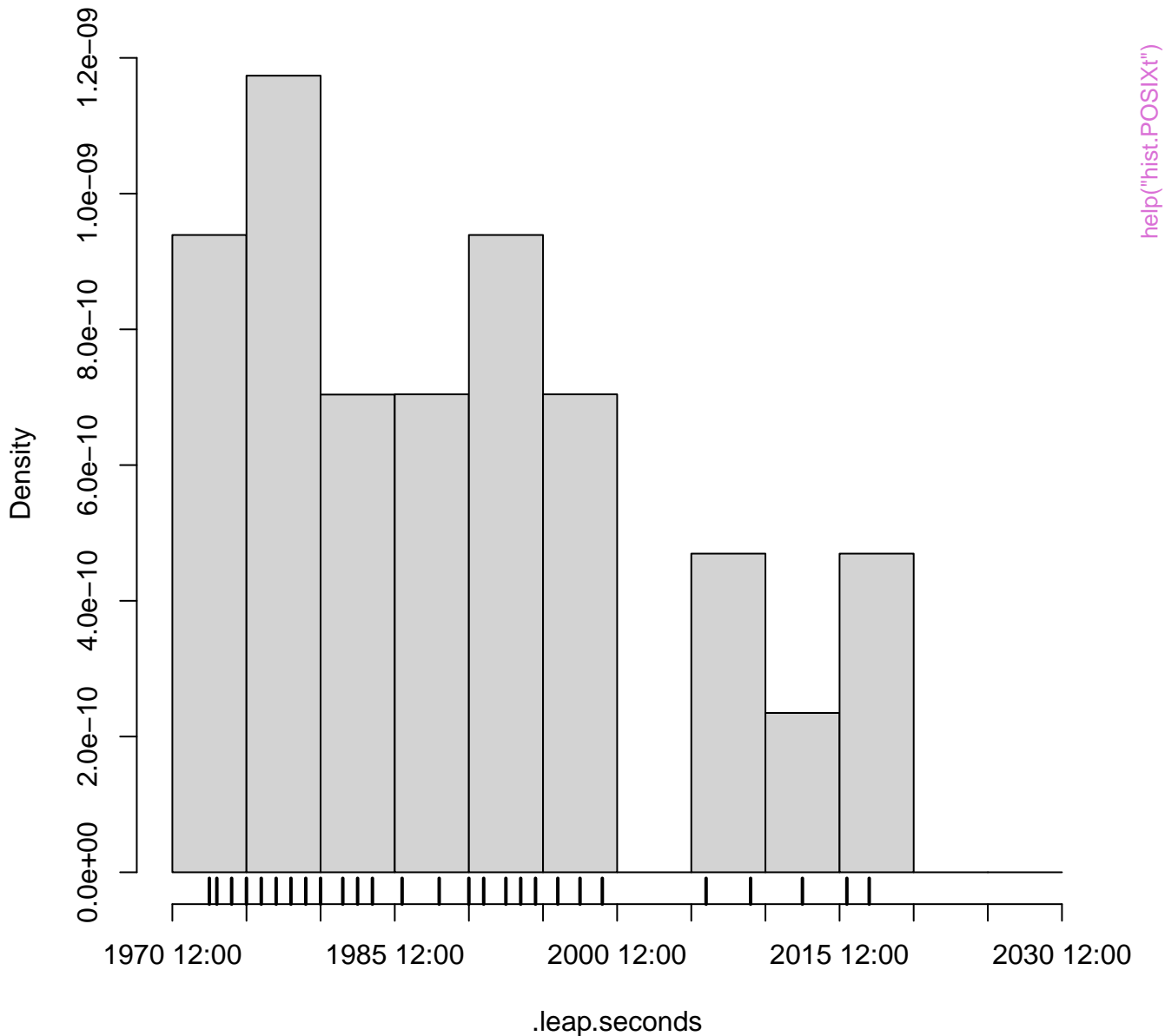
`with(iris, plot(...., panel.first = grid(), ... panel.first = grid(3, lty = 1, lwd = 2))`



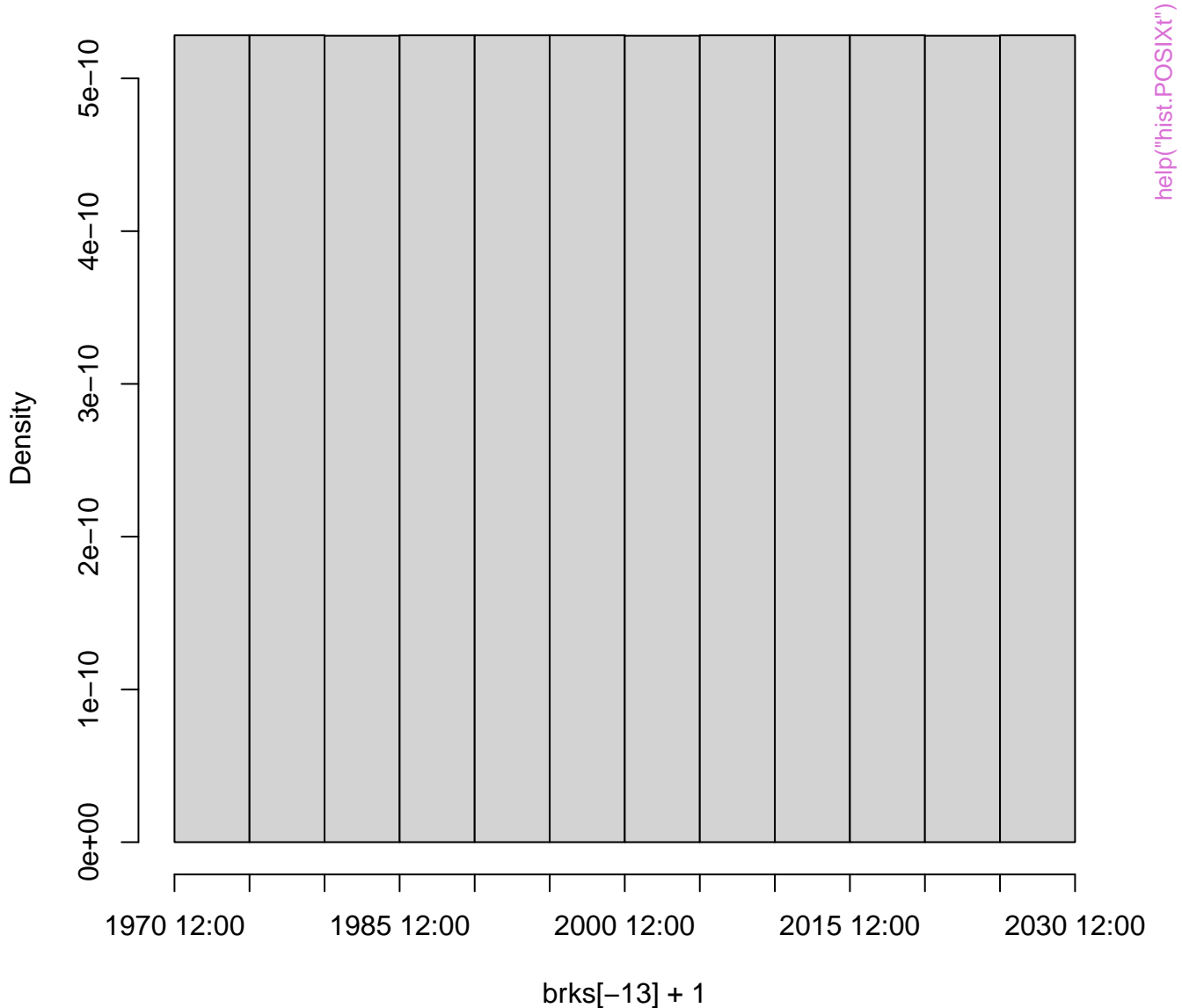
Histogram of .leap.seconds



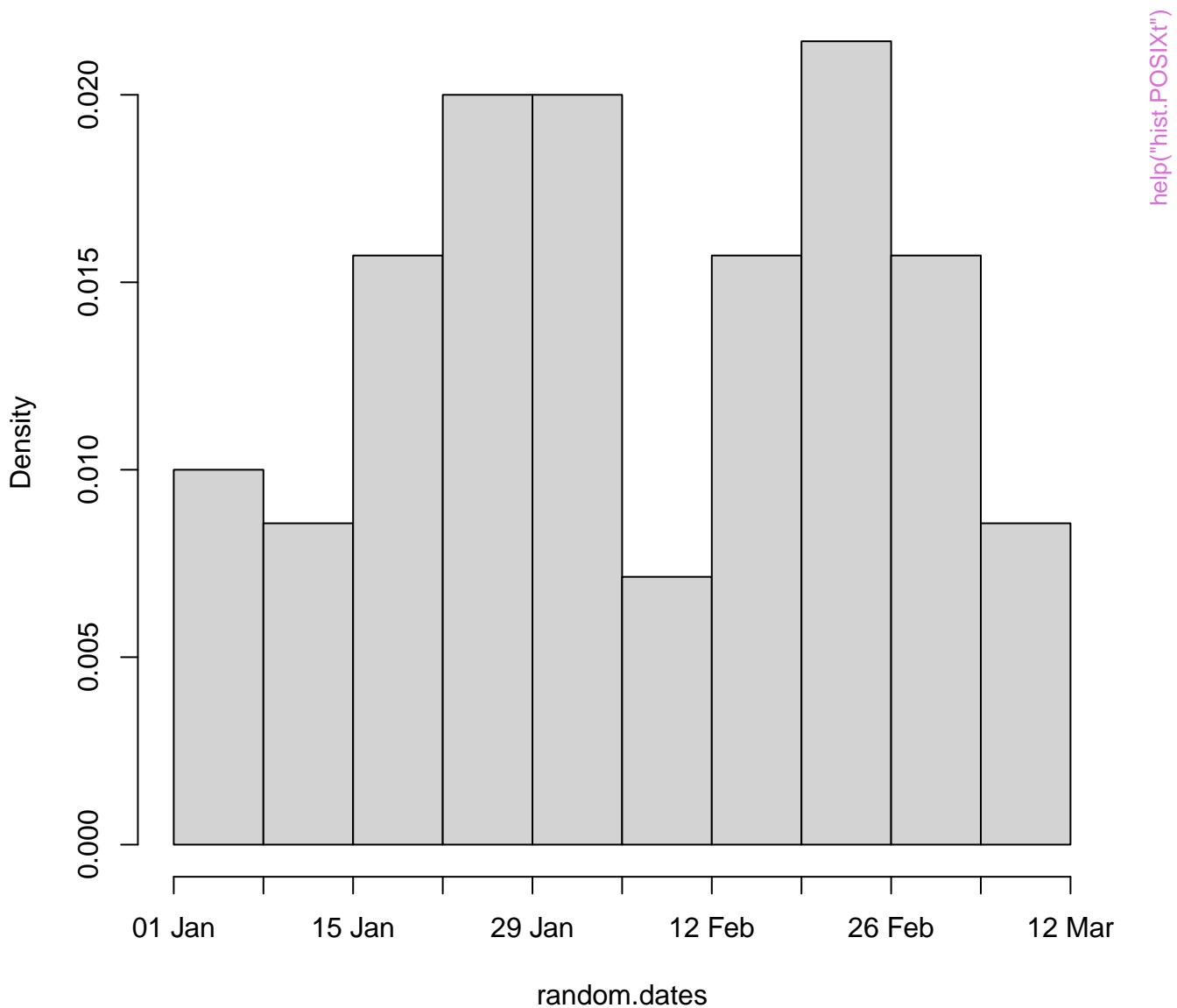
Histogram of .leap.seconds



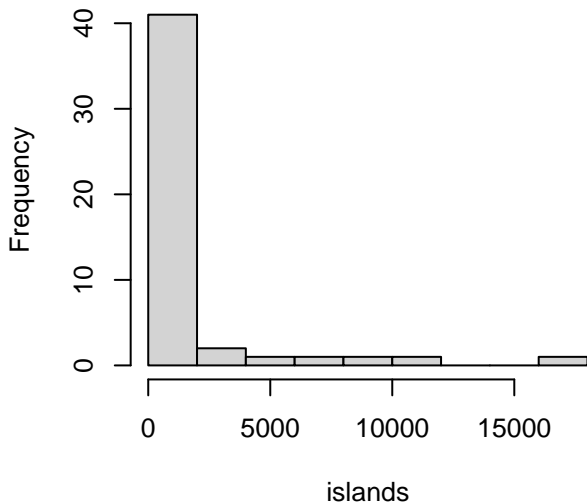
Histogram of brks[-13] + 1



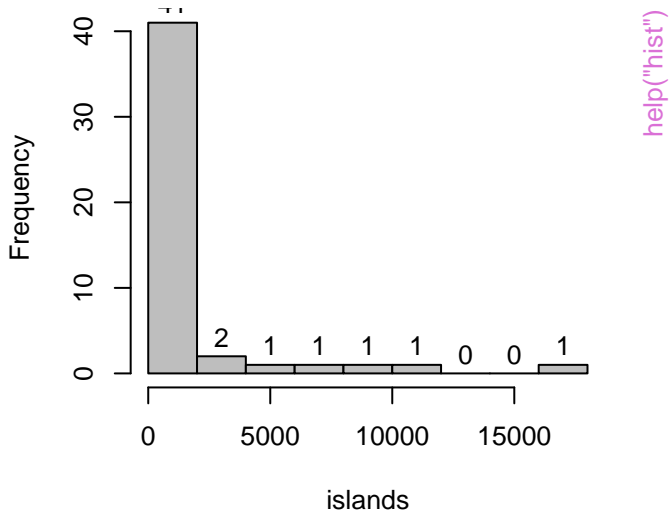
Histogram of random.dates



Histogram of islands

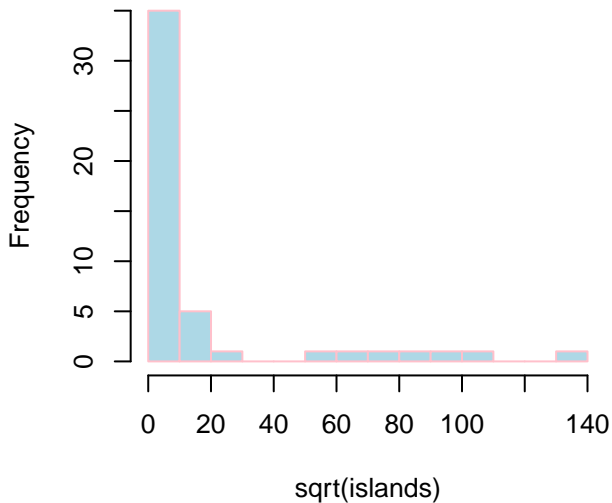


Histogram of islands

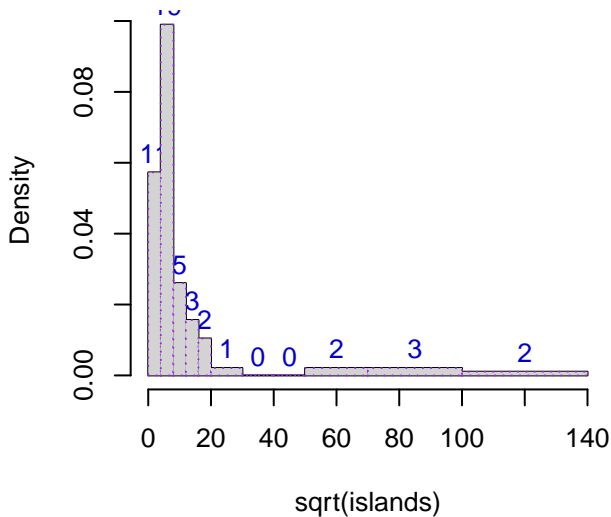


help("hist")

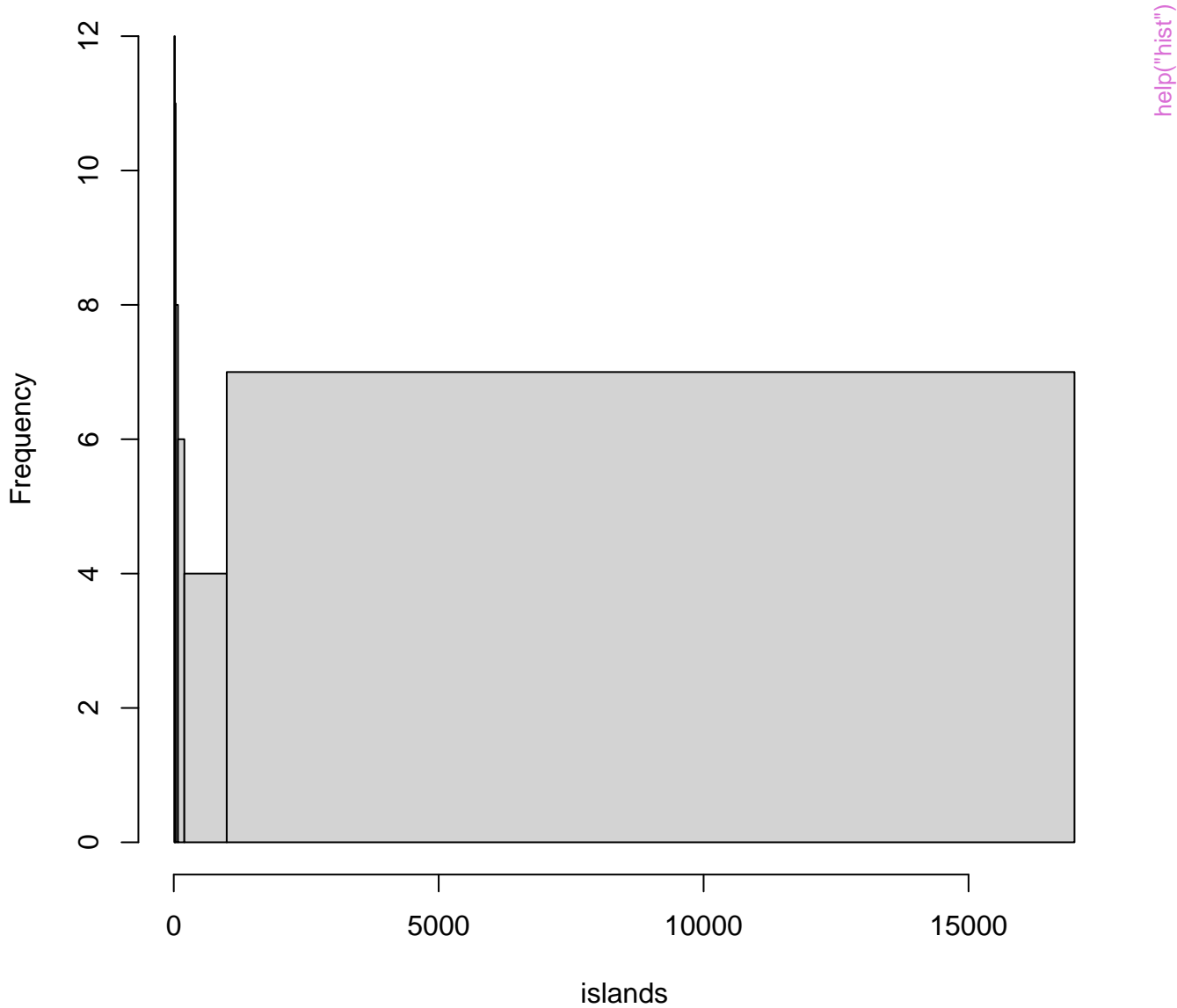
Histogram of sqrt(islands)



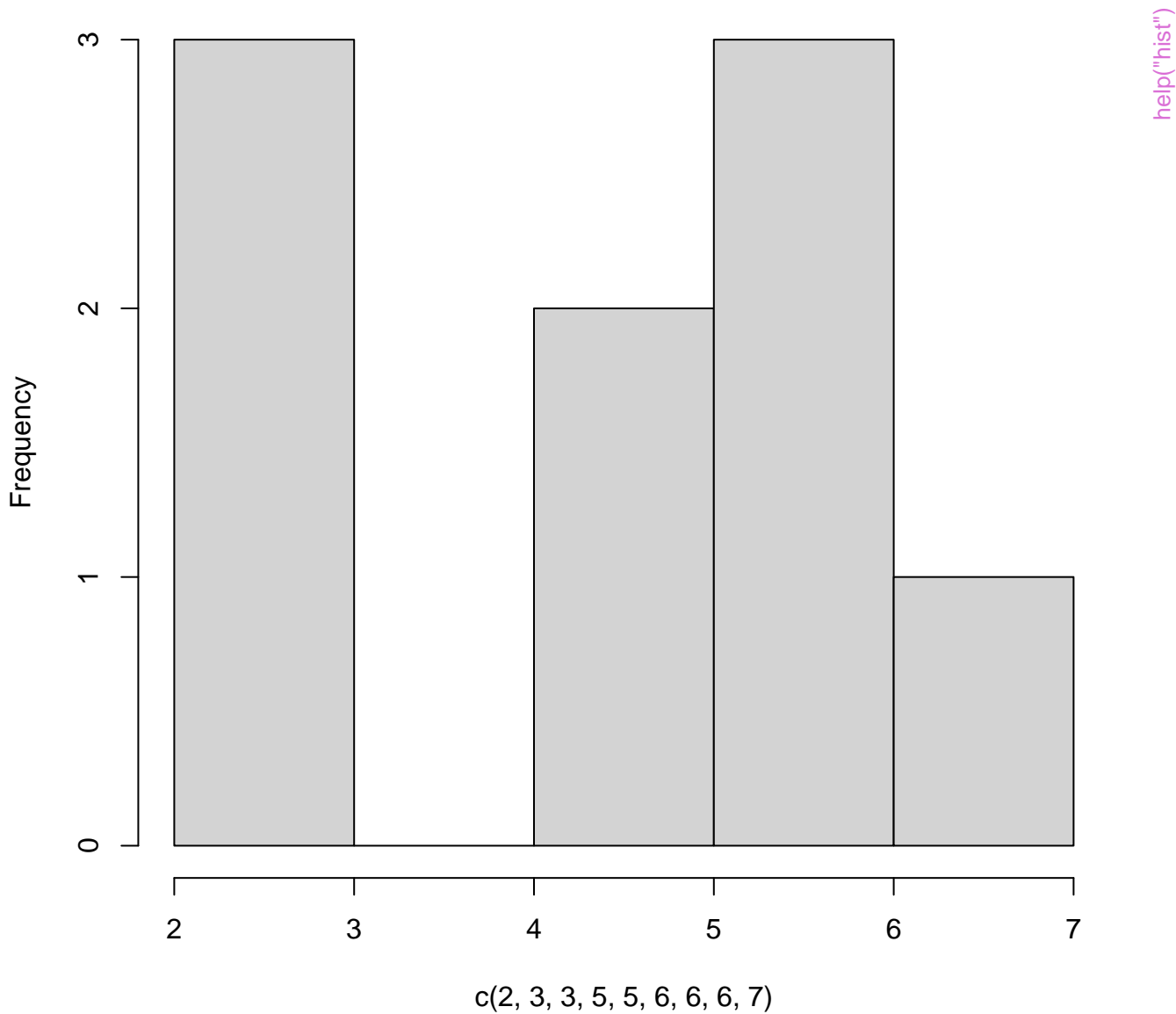
Histogram of sqrt(islands)



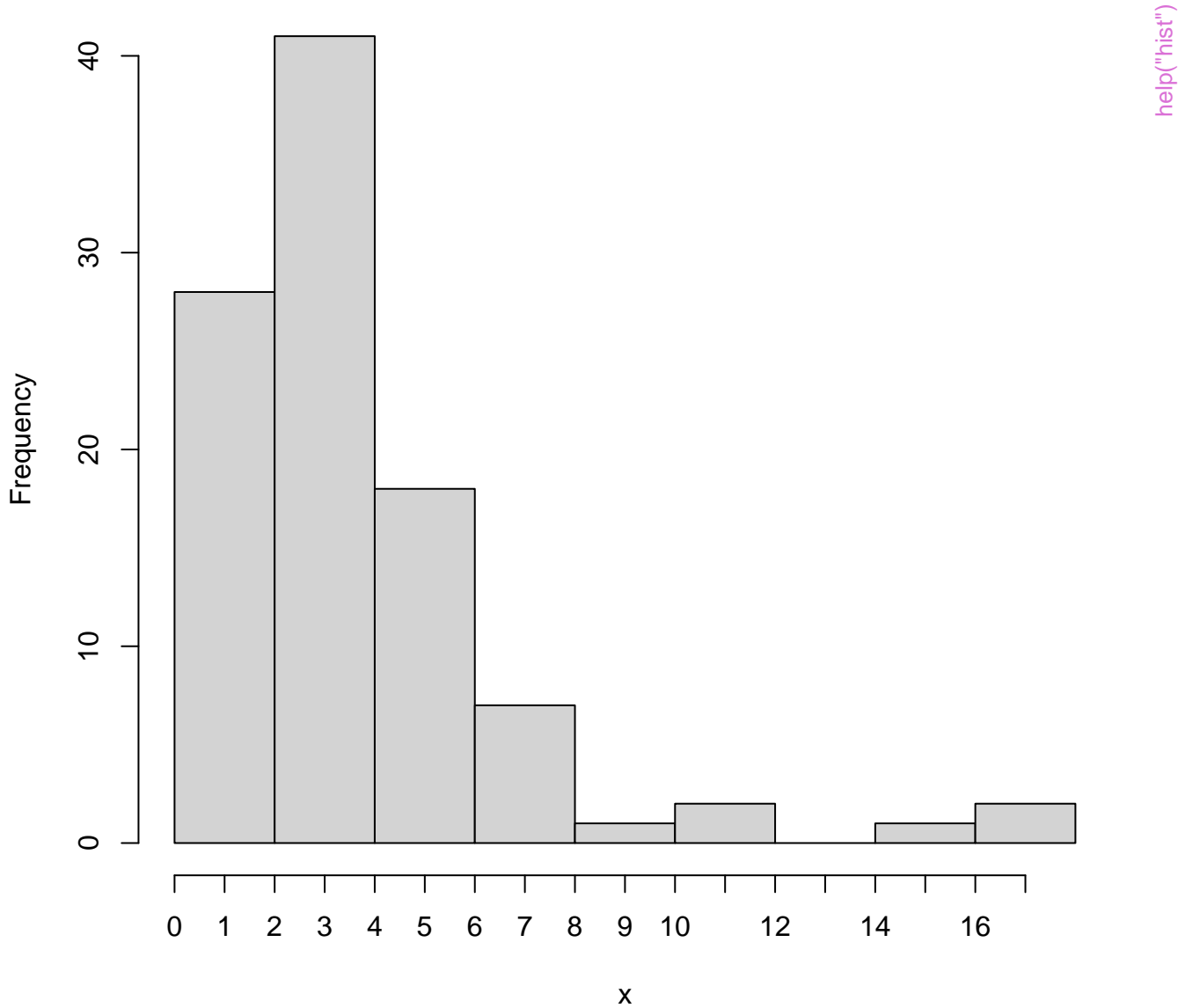
WRONG histogram

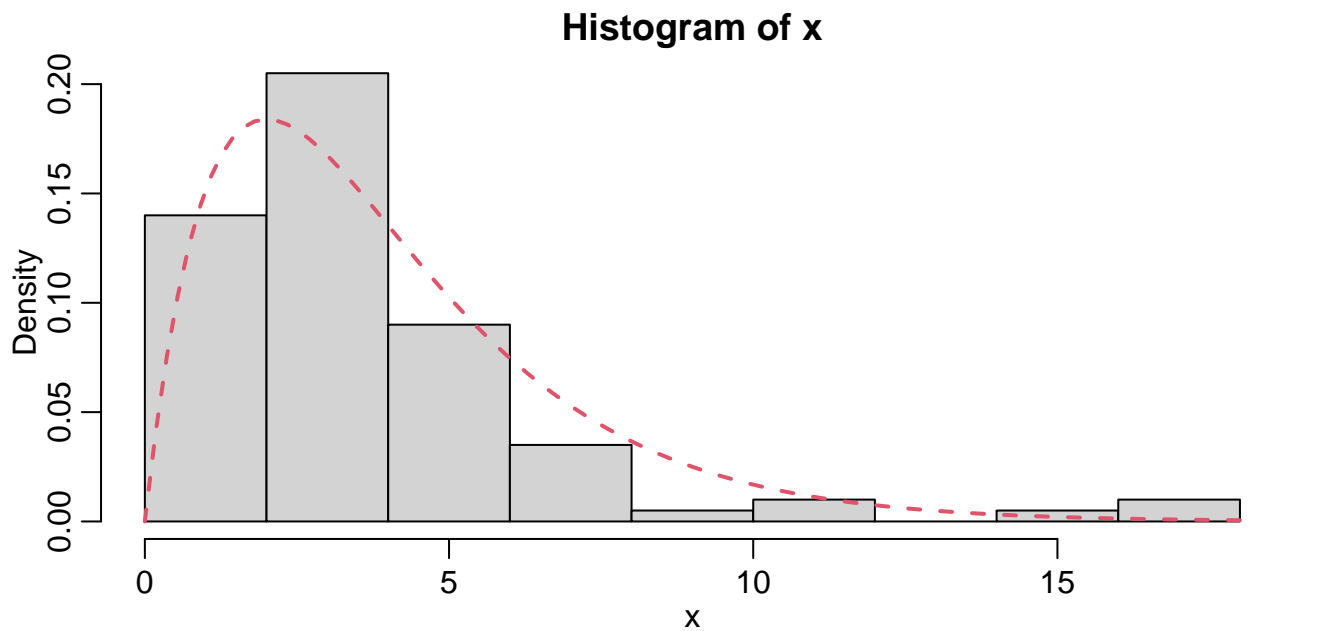
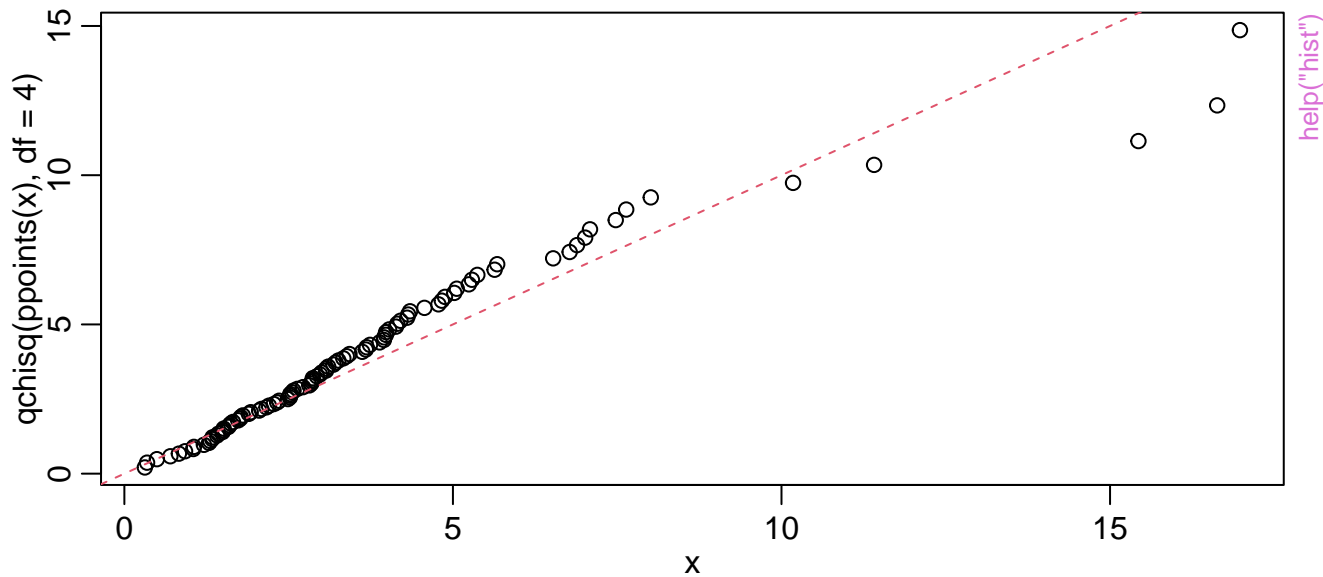


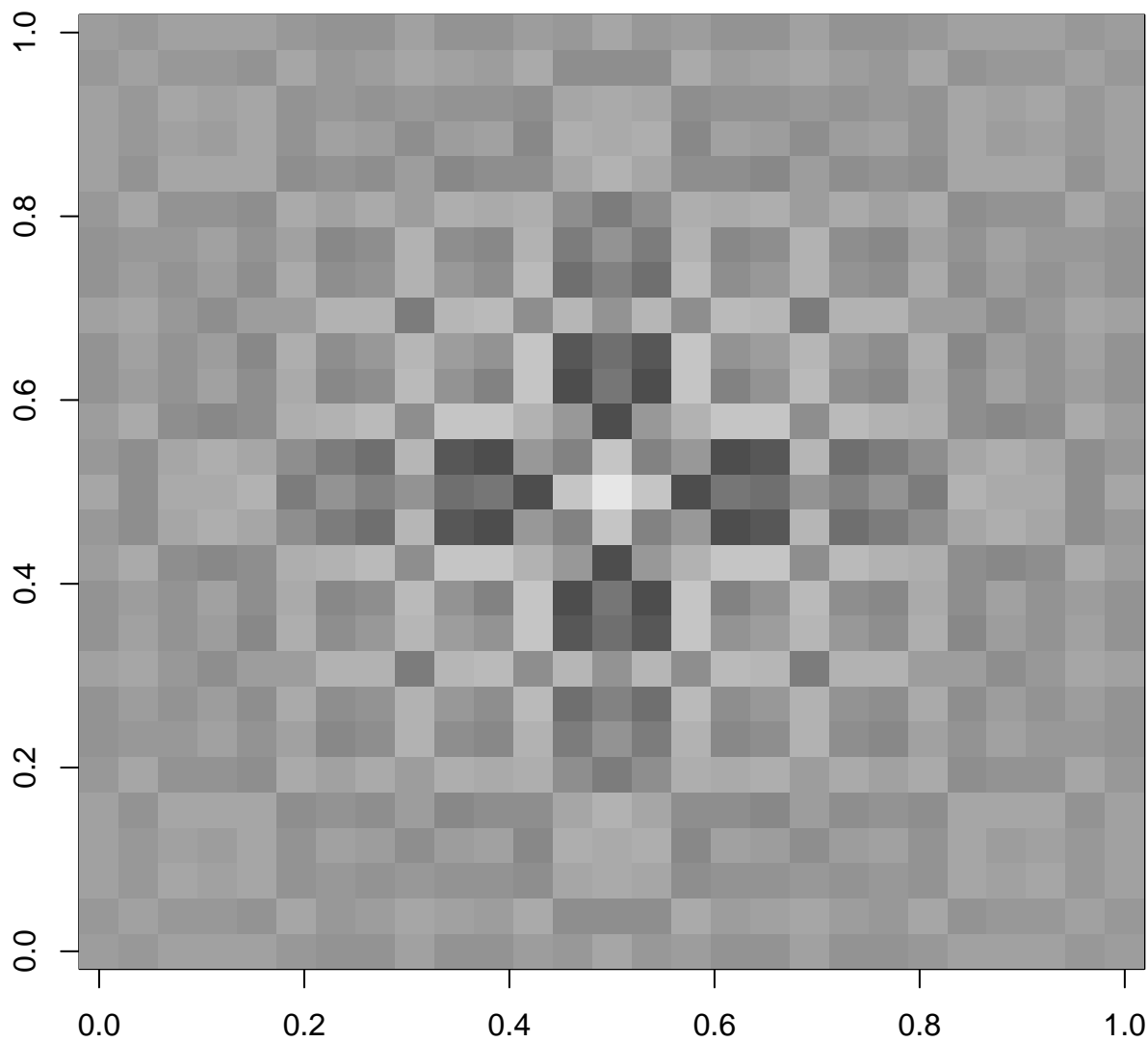
Histogram of c(2, 3, 3, 5, 5, 6, 6, 6, 7)



Histogram of x

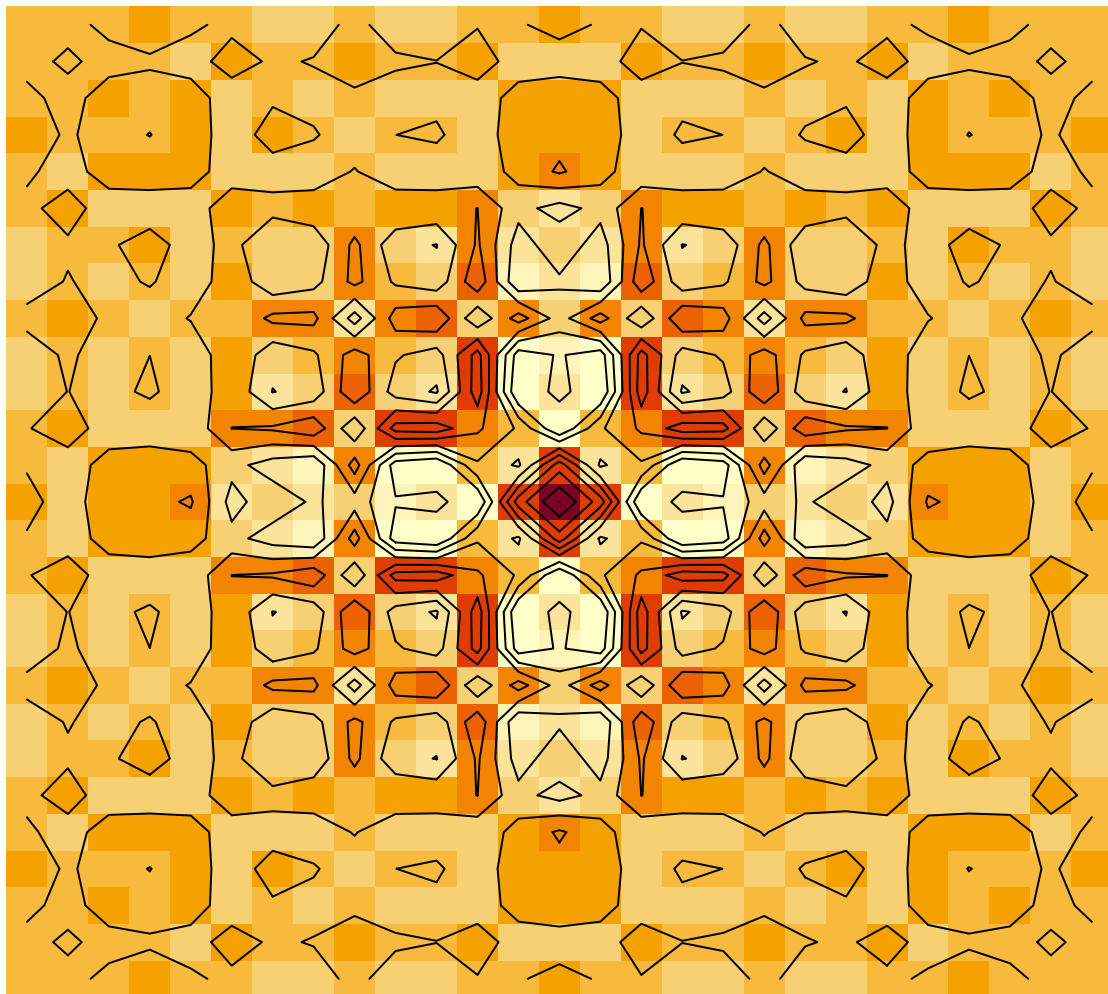






help("image")

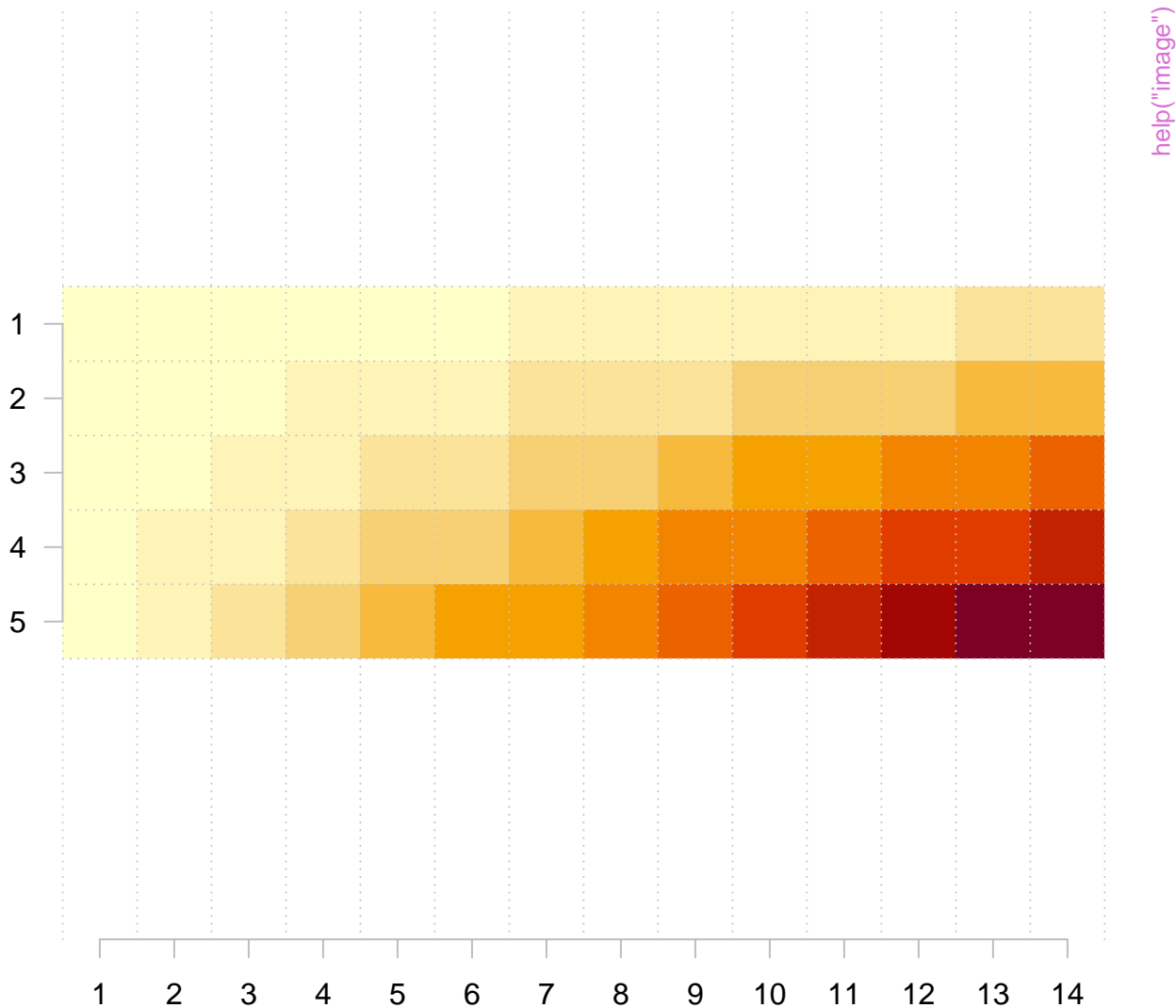
Math can be beautiful ...



help("image")

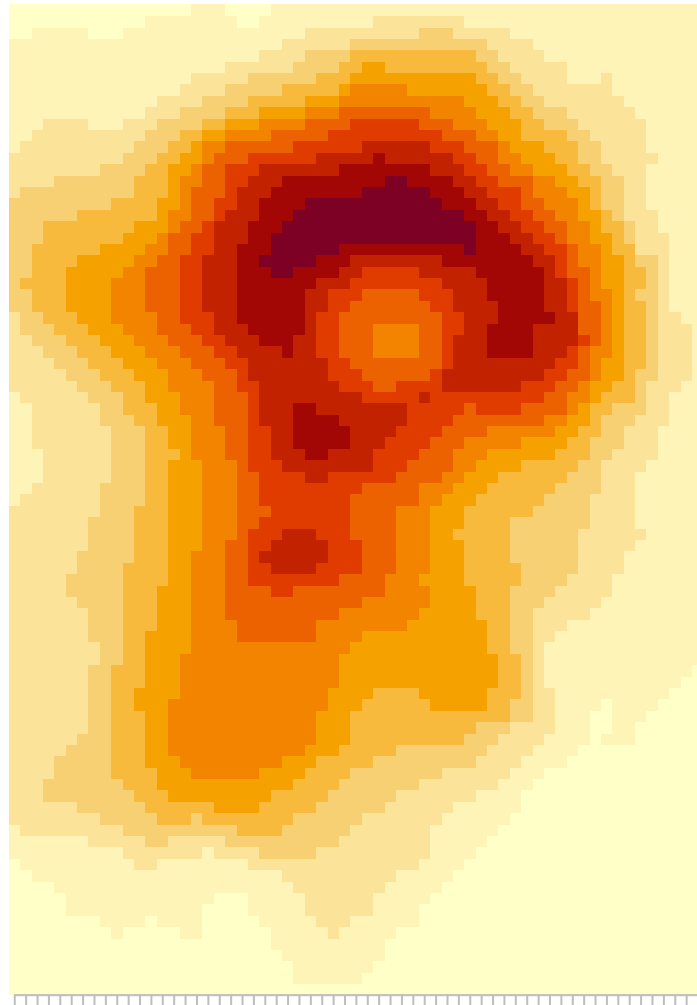
$$\cos(r^2)e^{-r/6}$$

image(<5 x 14 matrix>) with rows and columns



help("image")

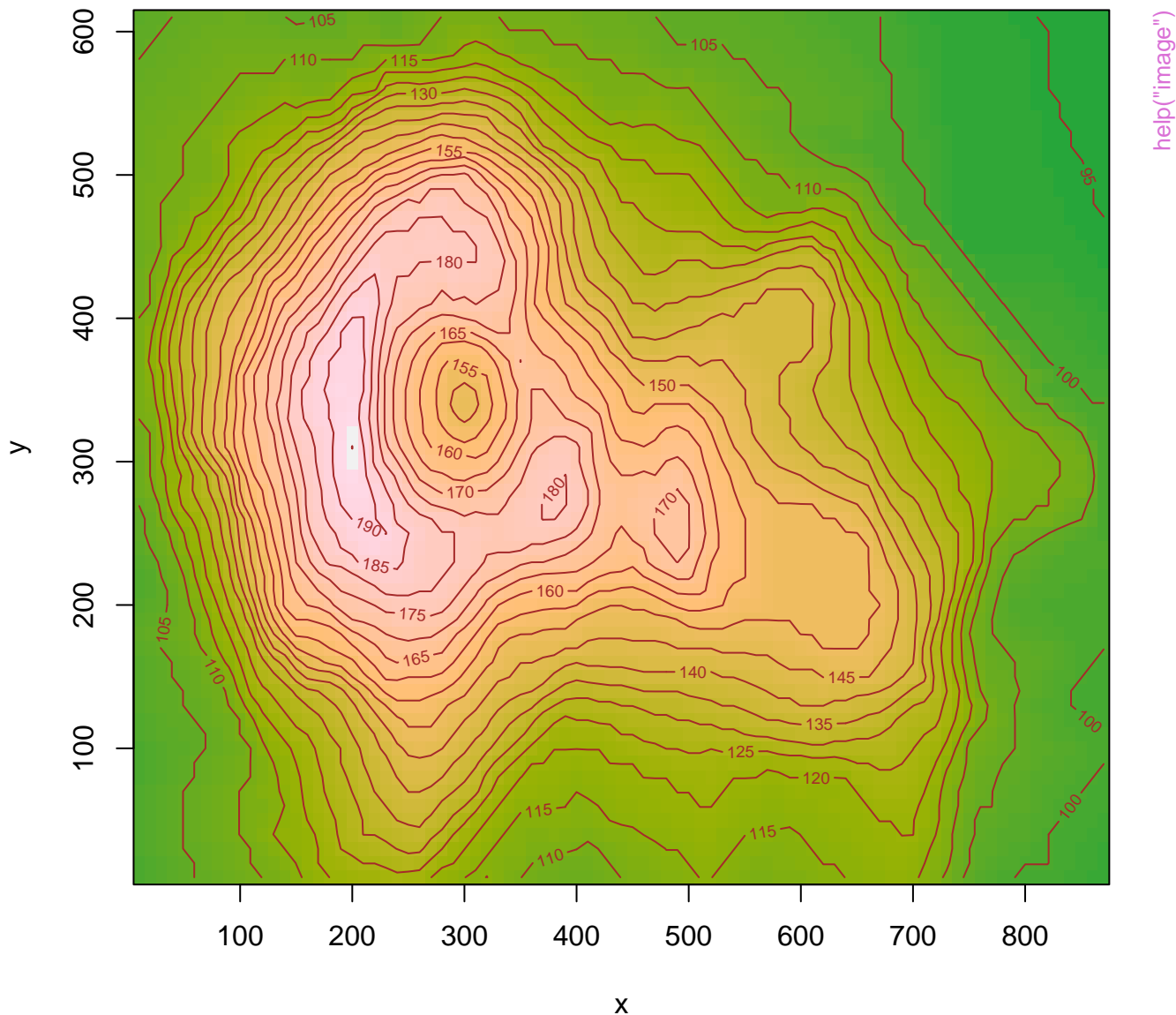
3
6
9
12
15
18
21
24
27
30
33
36
39
42
45
48
51
54
57
60
63
66
69
72
75
78
81
84
87



1 5 9 14 20 26 32 38 44 50 56

help("image")

Maunga Whau Volcano



1

2

1

2

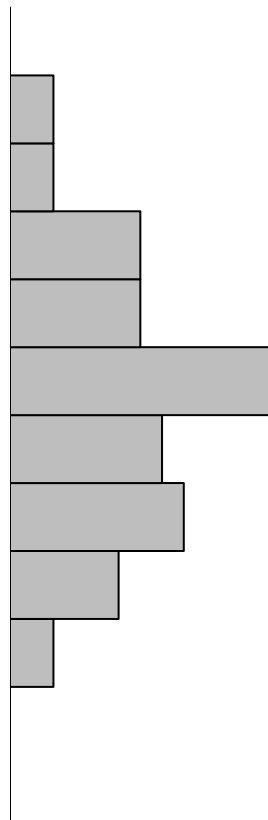
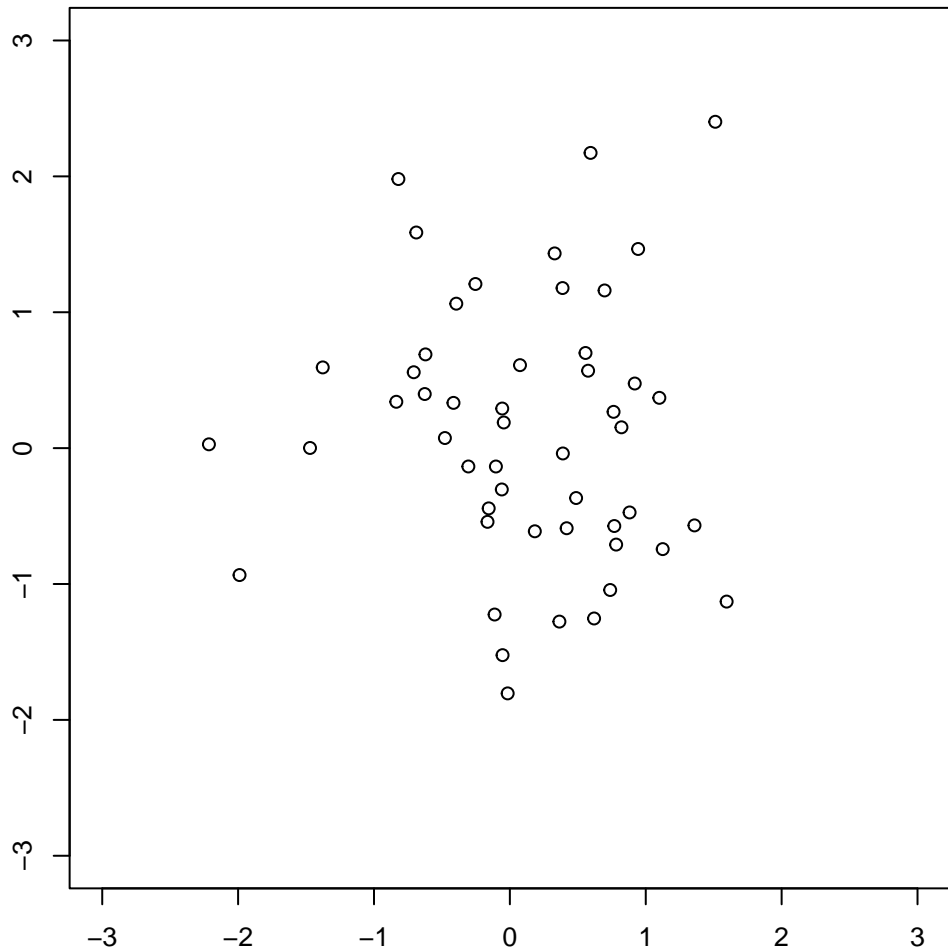
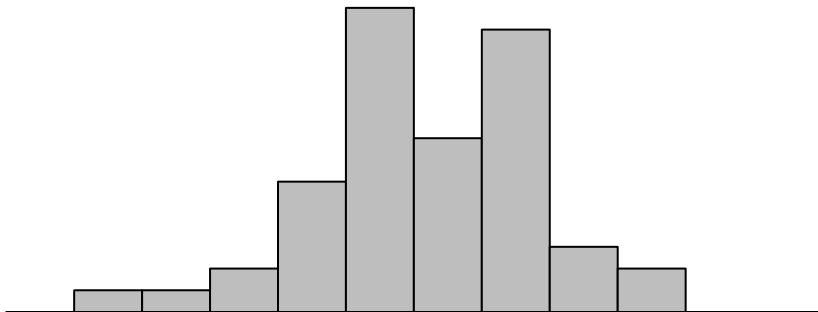
1

help("layout")

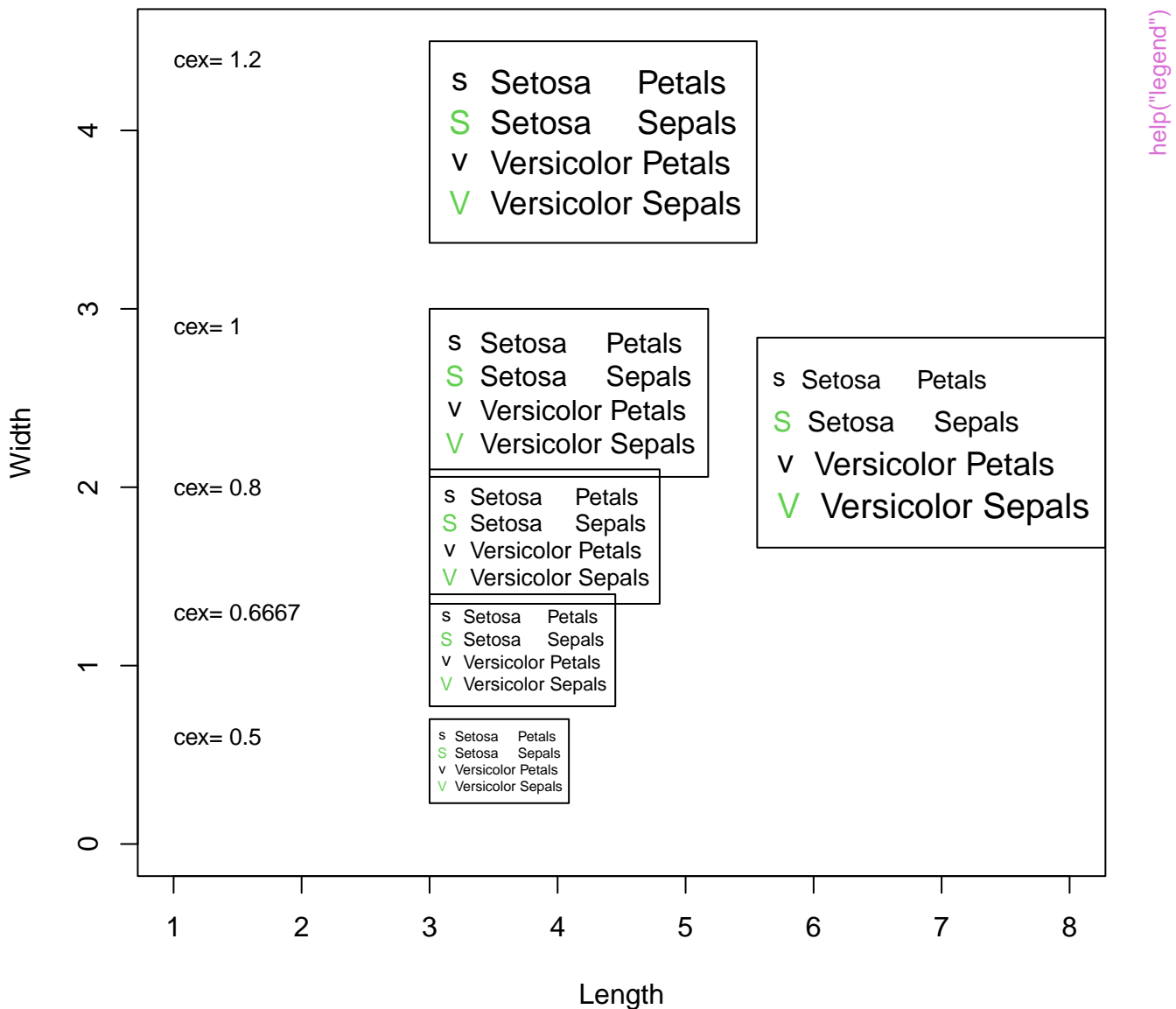
2

1

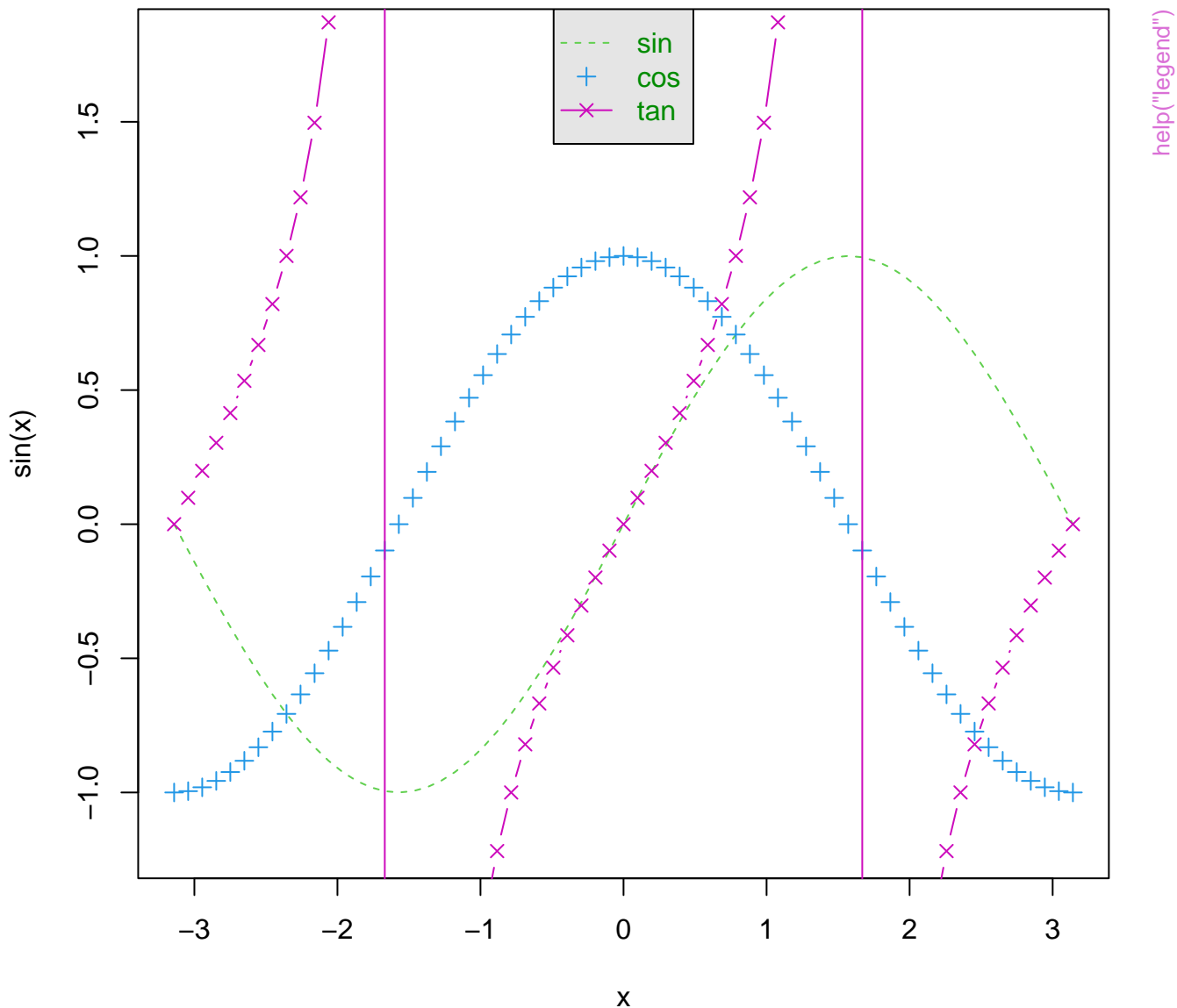
3



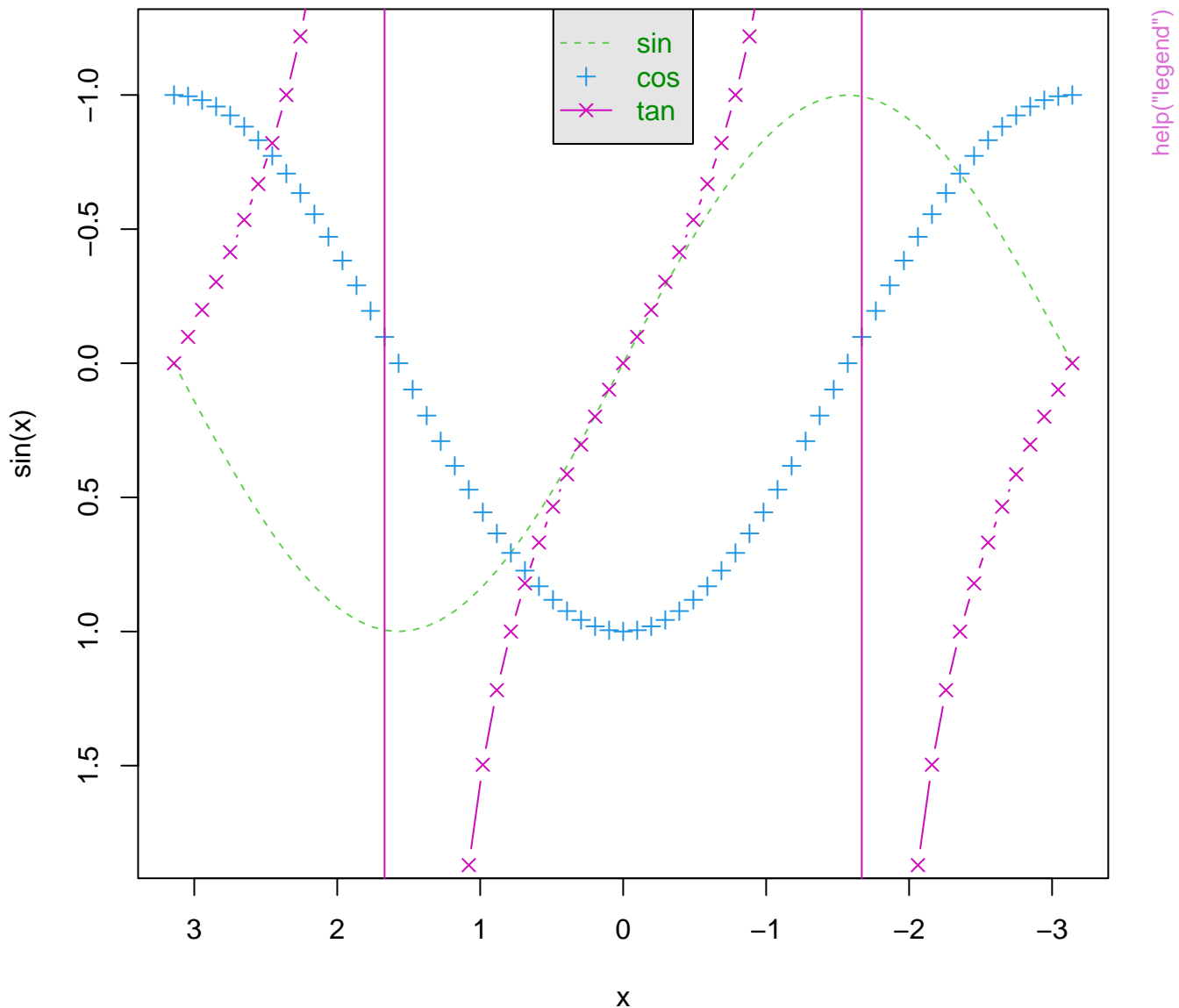
Petal and Sepal Dimensions in Iris Blossoms

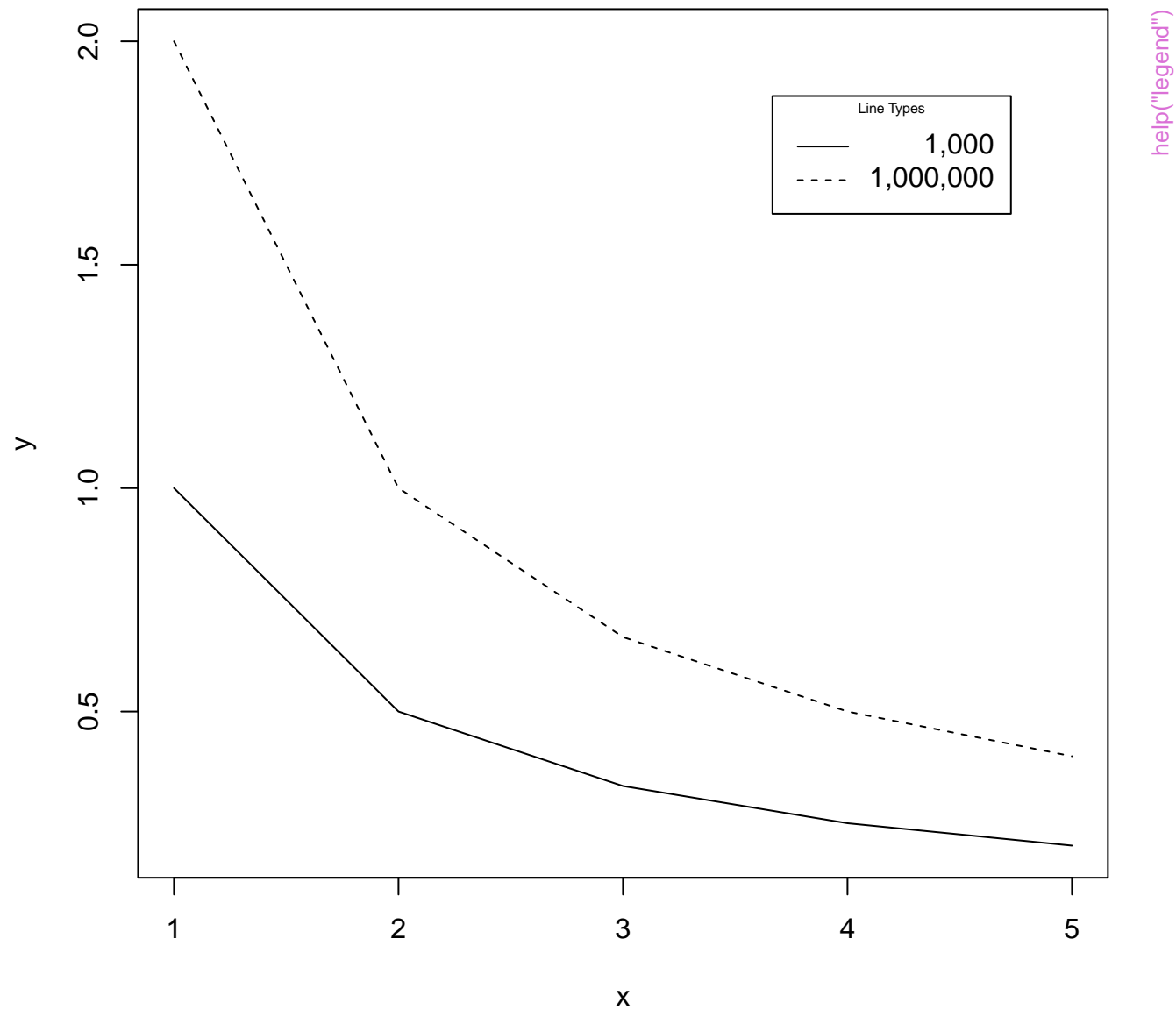


`legend('top', lty = c(2, -1, 1), pch = c(NA, 3, 4), merge = TRUE)`

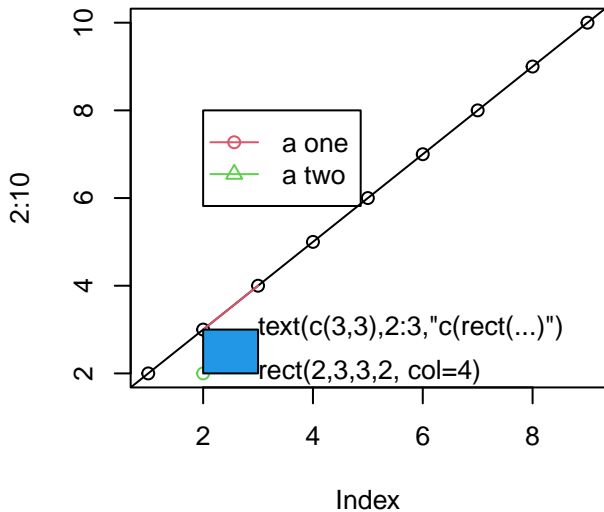


`legend('top', lty = c(2, -1, 1), pch = c(NA, 3, 4), merge = TRUE)`

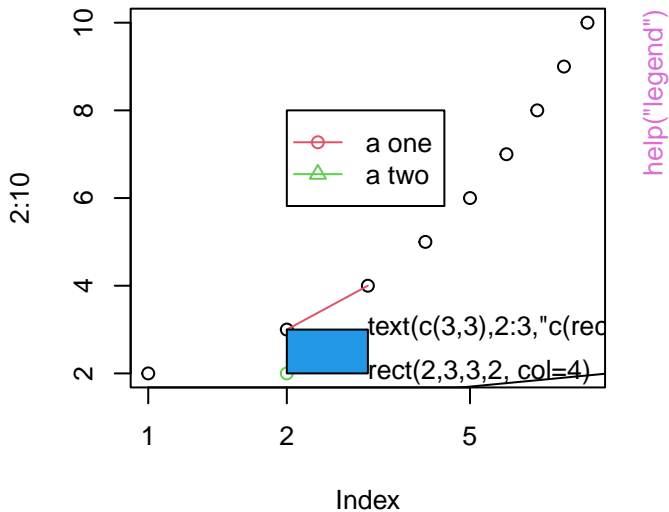




log = ""

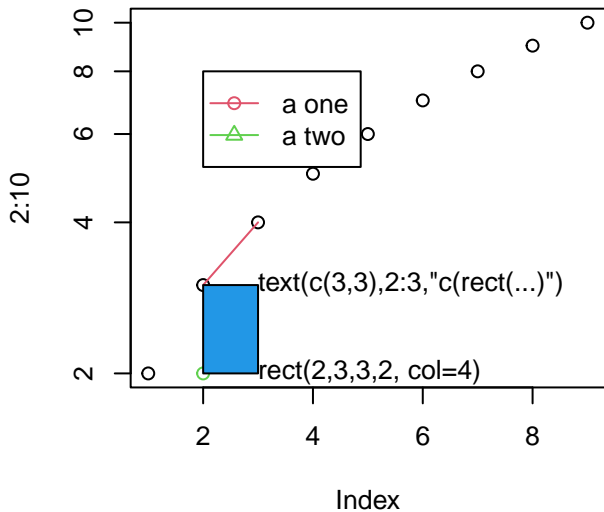


log = 'x'

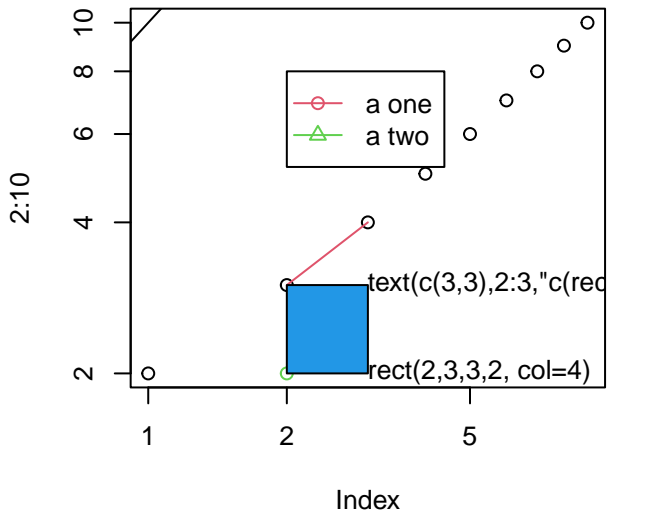


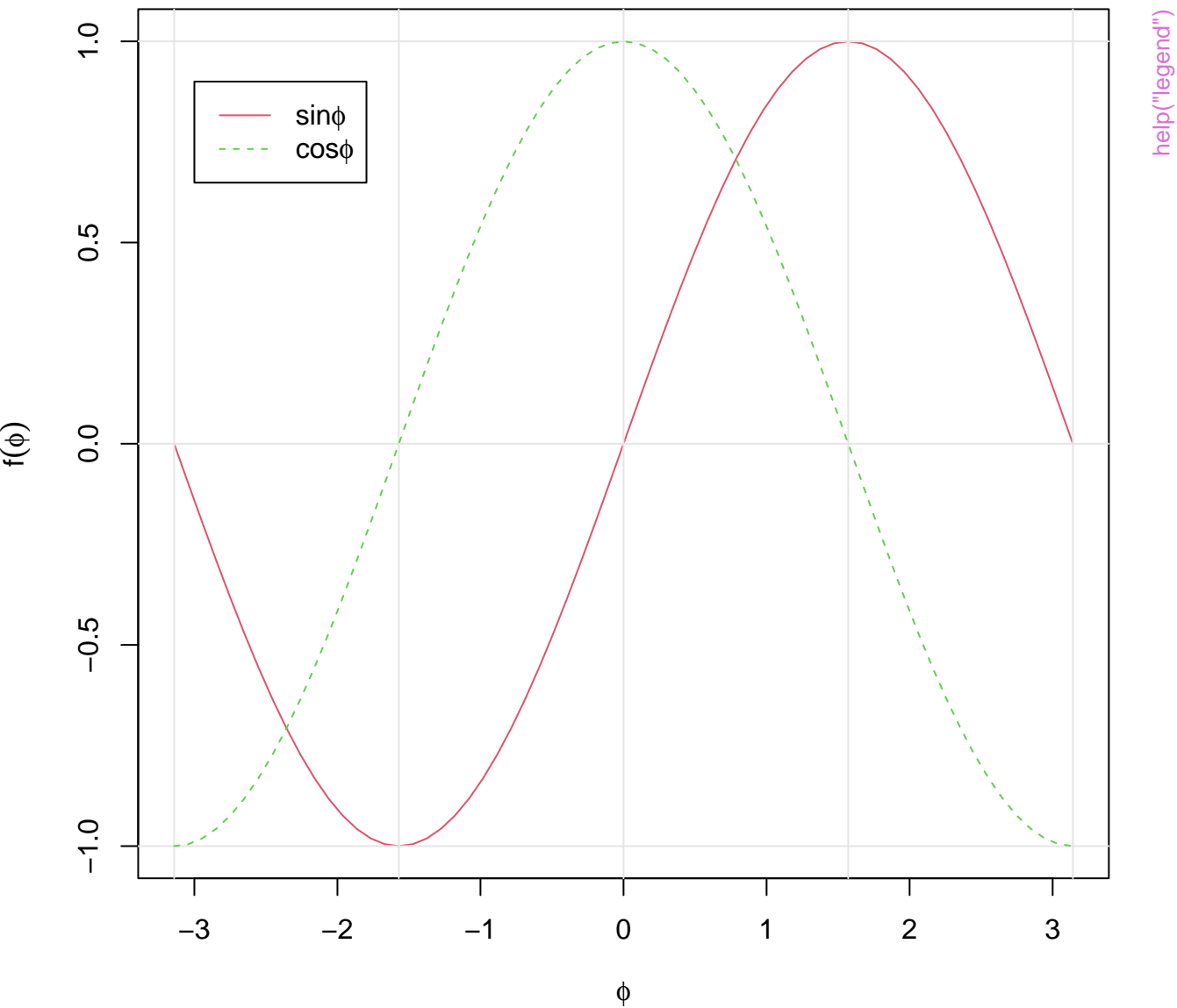
help("legend")

log = 'y'

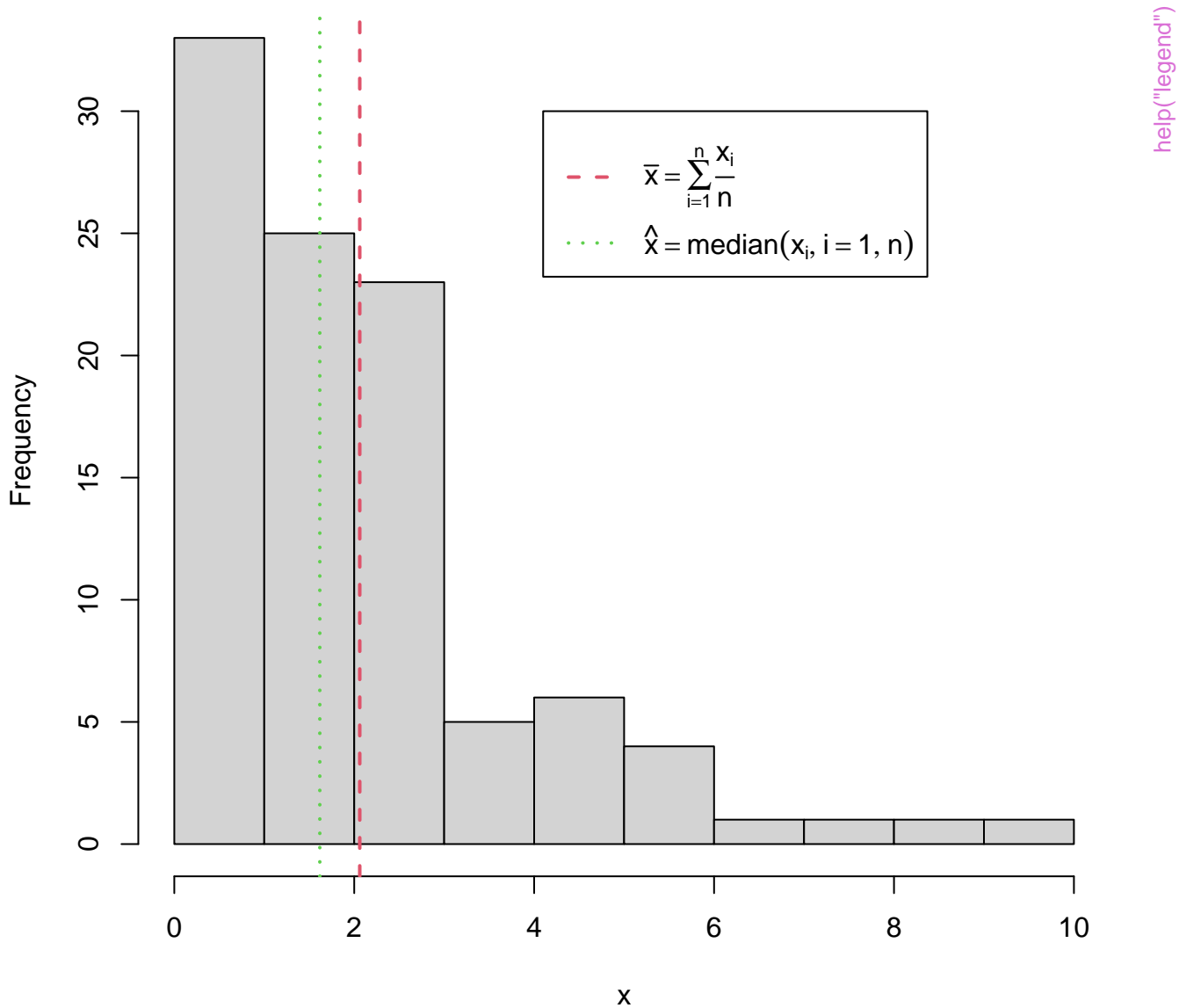


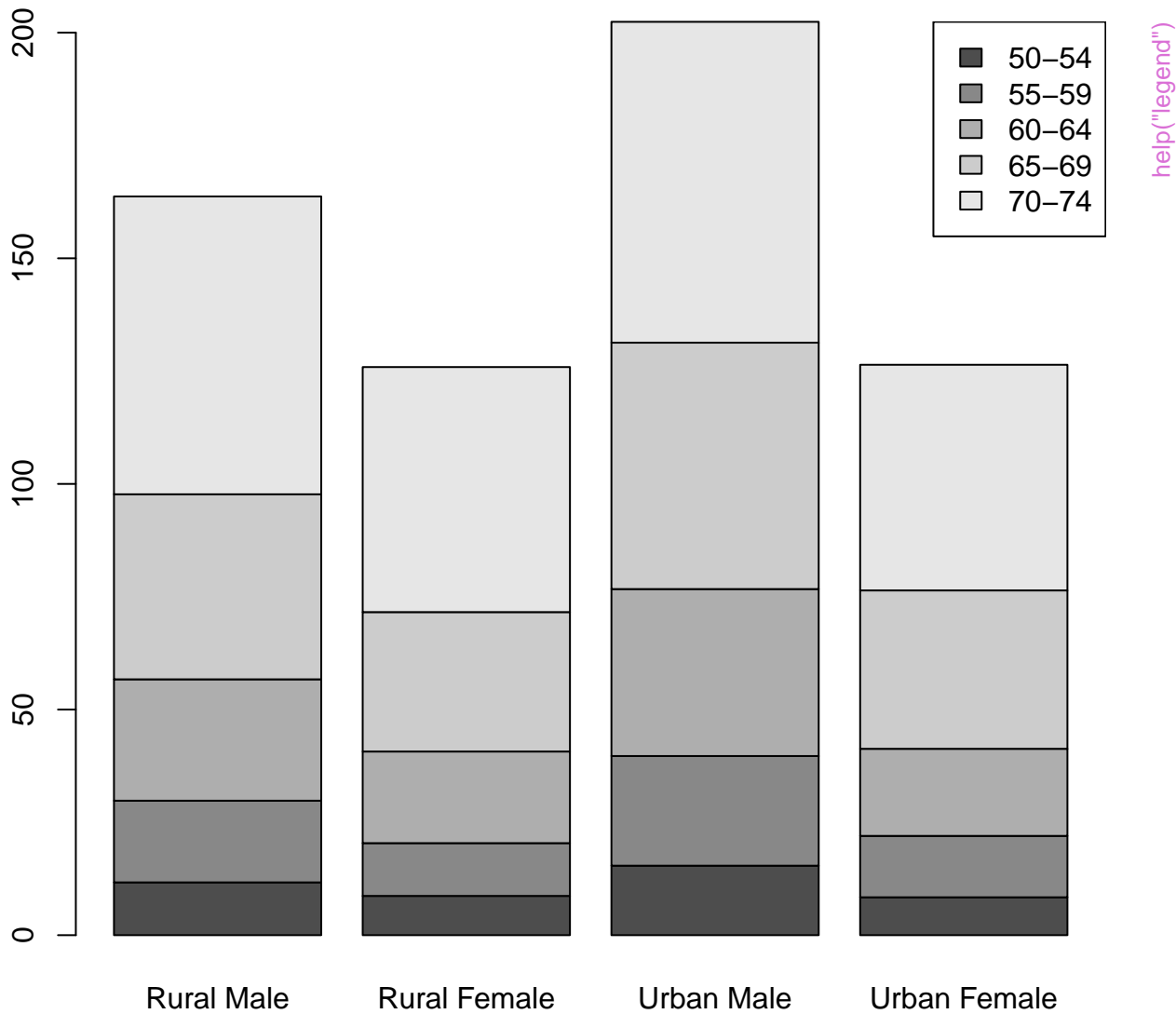
log = 'xy'

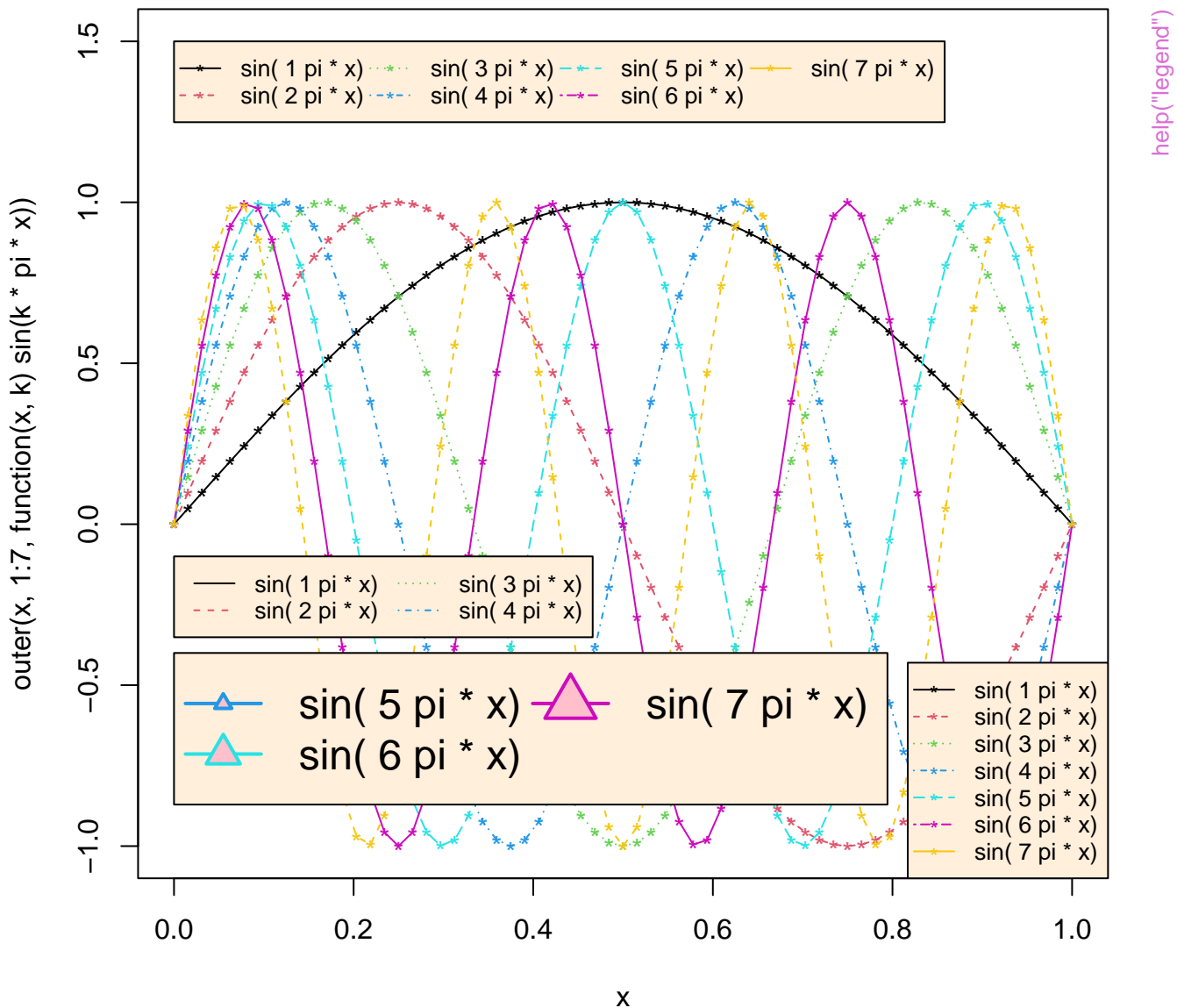


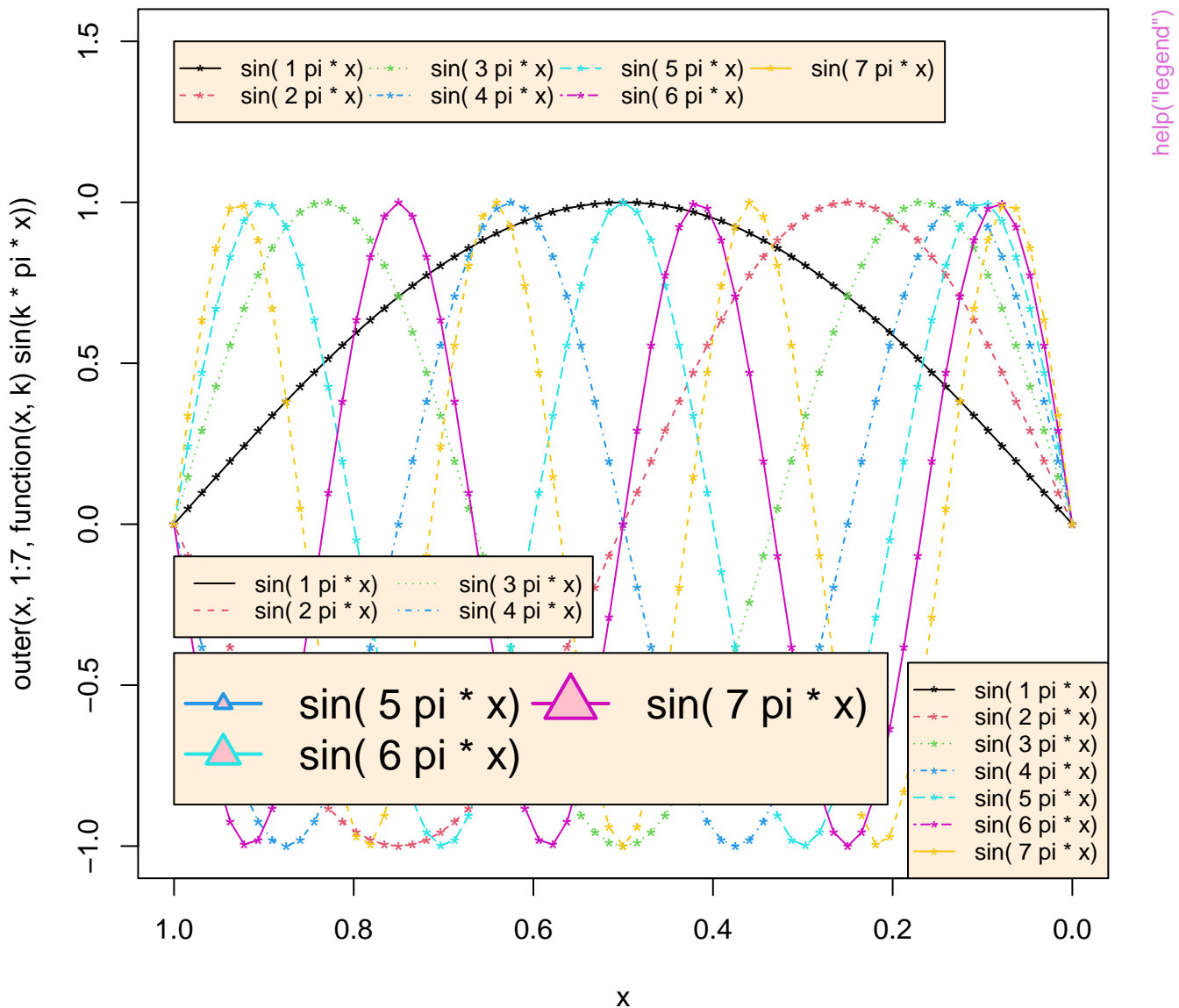


Mean and Median of a Skewed Distribution

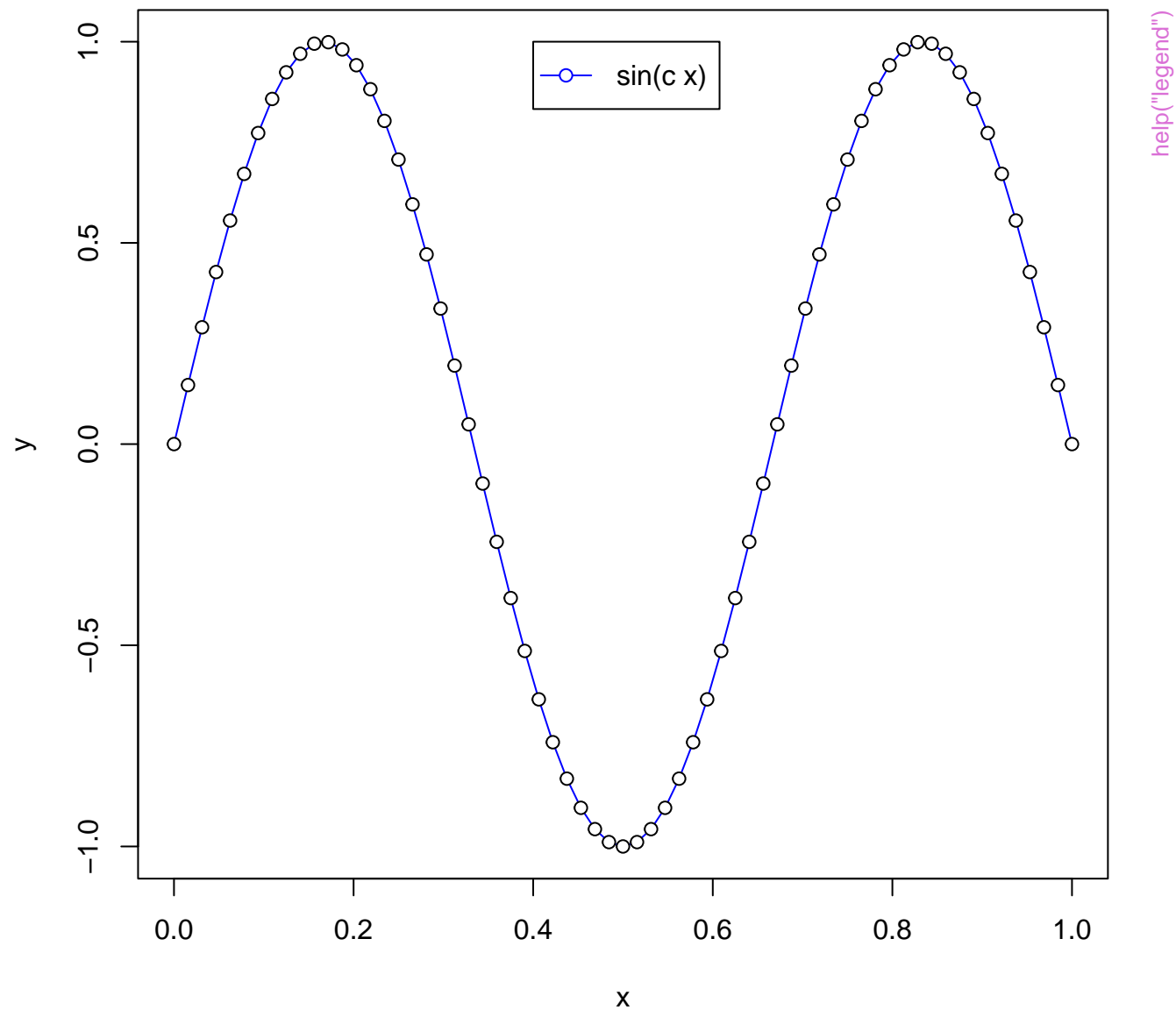


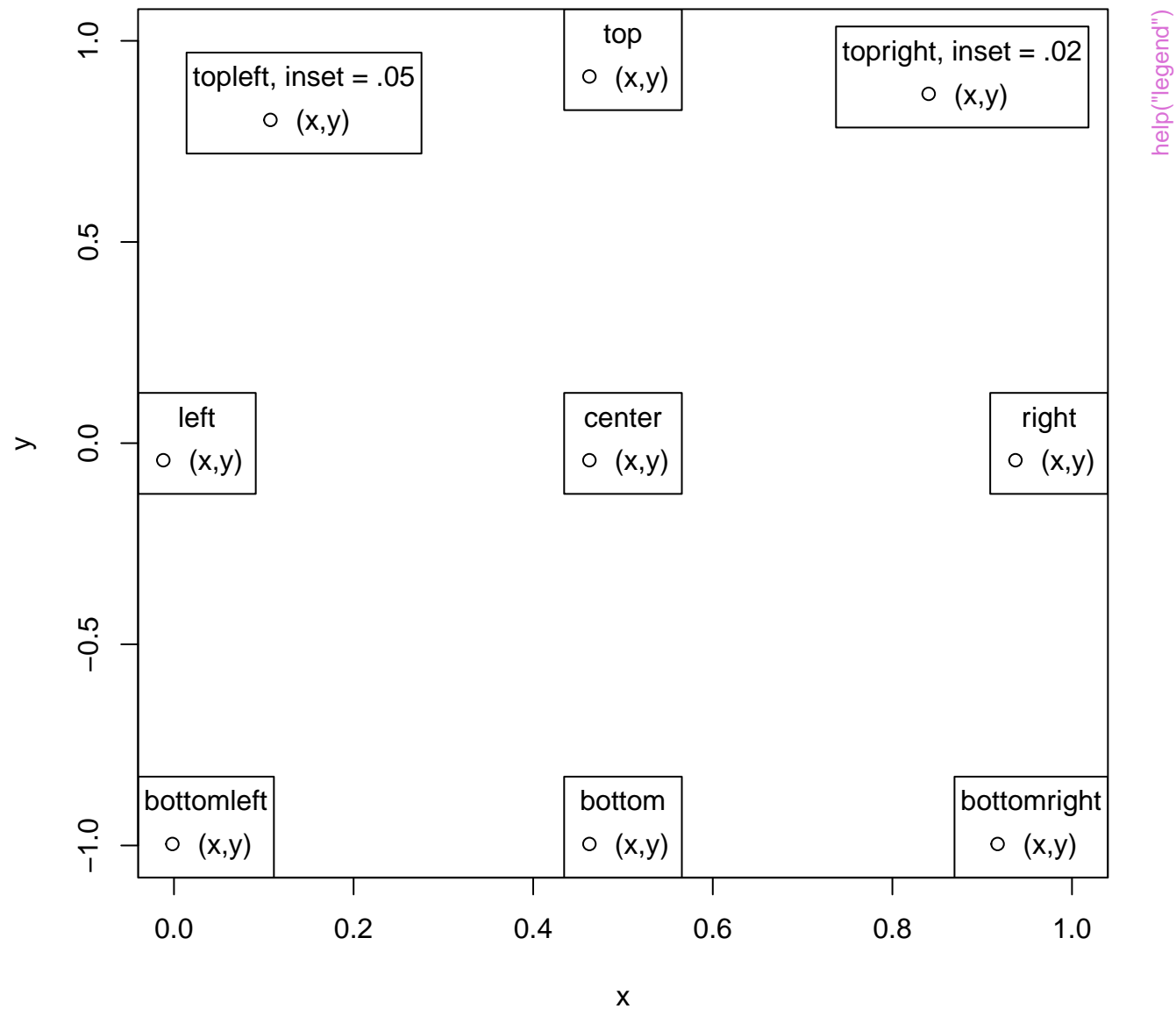






points with bg & legend(*, pt.bg)





text.font = 1

——	A	——	D
——	B	——	E
——	C	——	F

text.font = 2

——	A	——	D
——	B	——	E
——	C	——	F

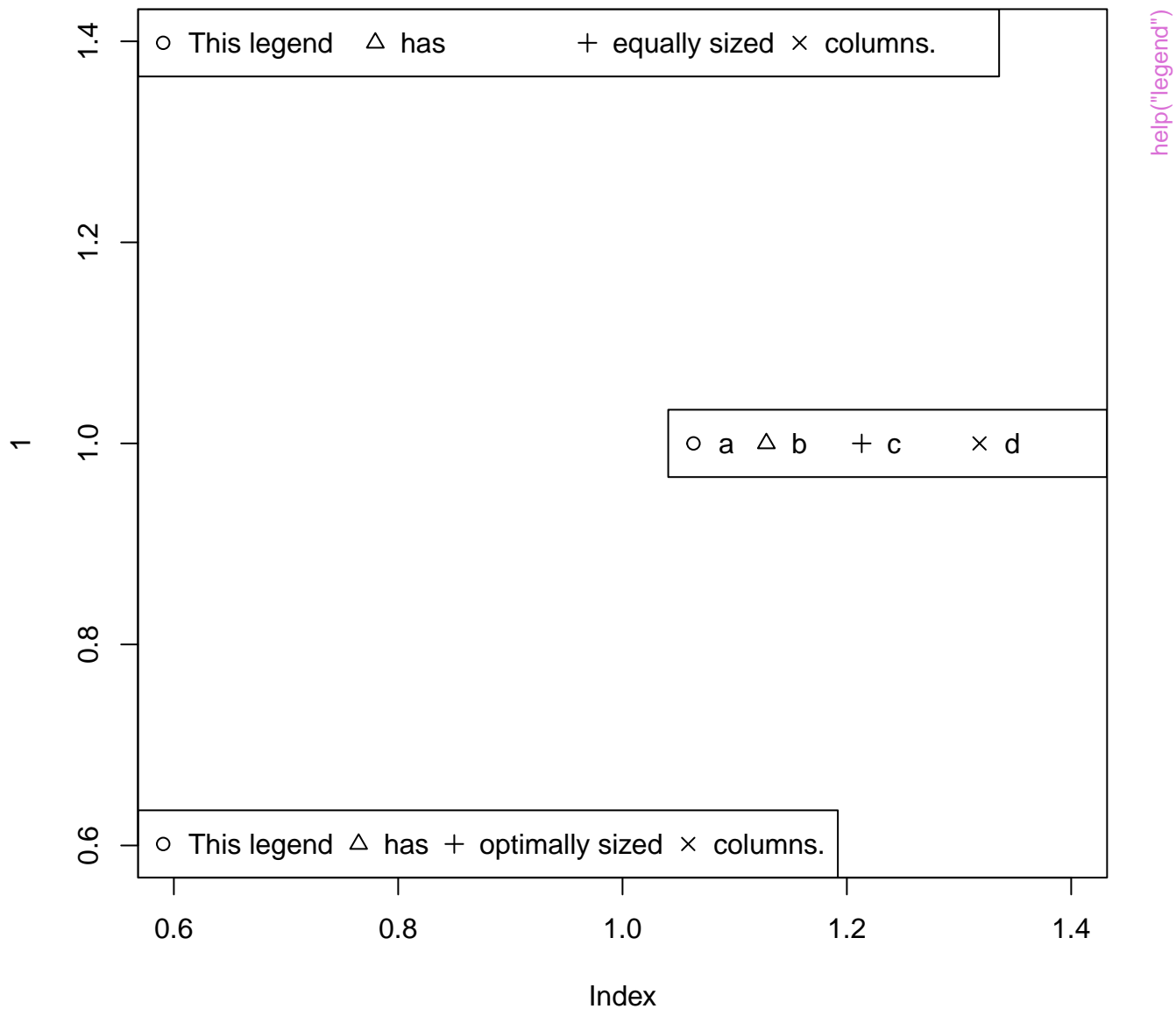
text.font = 3

——	<i>A</i>	——	<i>D</i>
——	<i>B</i>	——	<i>E</i>
——	<i>C</i>	——	<i>F</i>

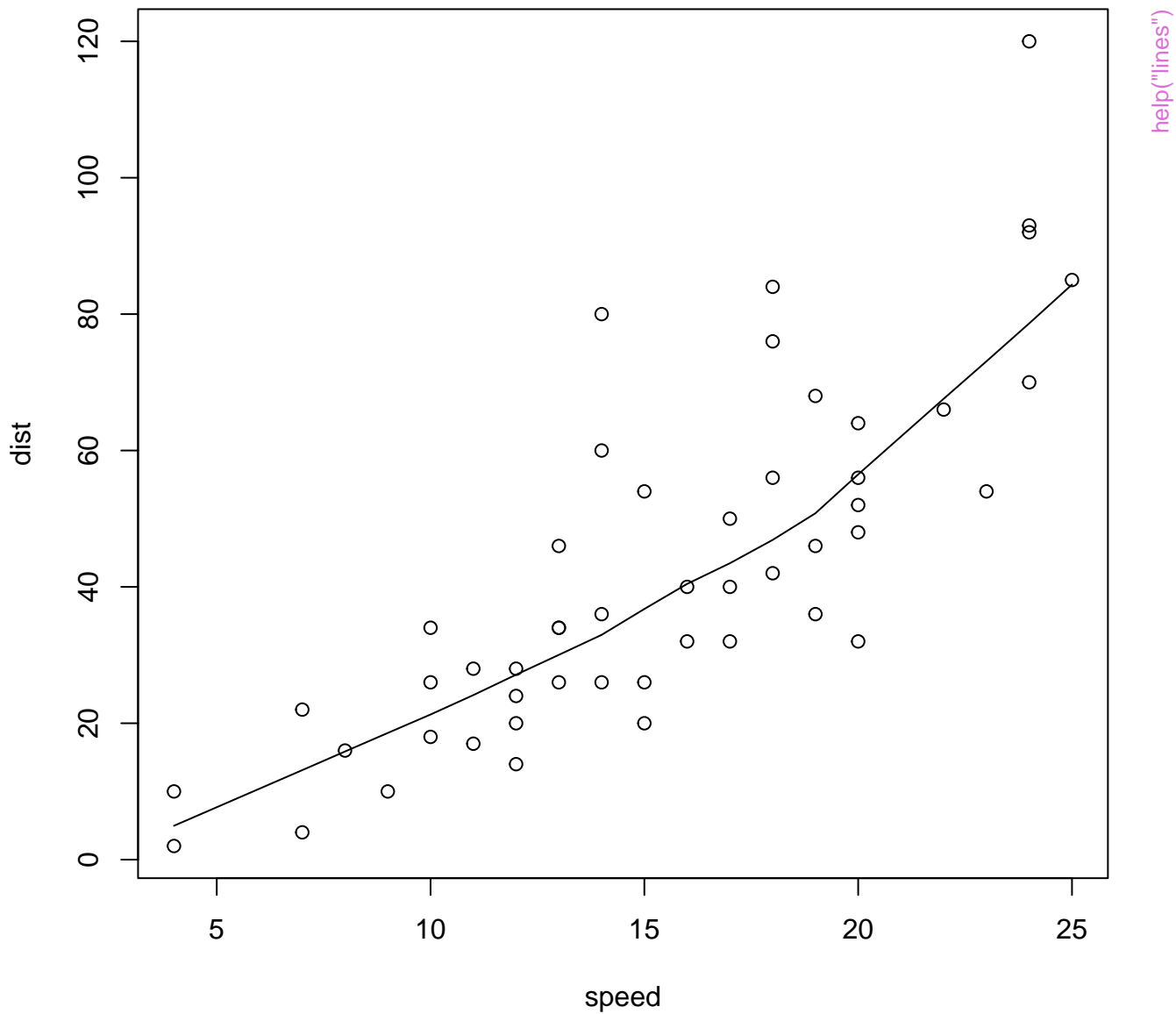
text.font = 4

——	<i>A</i>	——	<i>D</i>
——	<i>B</i>	——	<i>E</i>
——	<i>C</i>	——	<i>F</i>

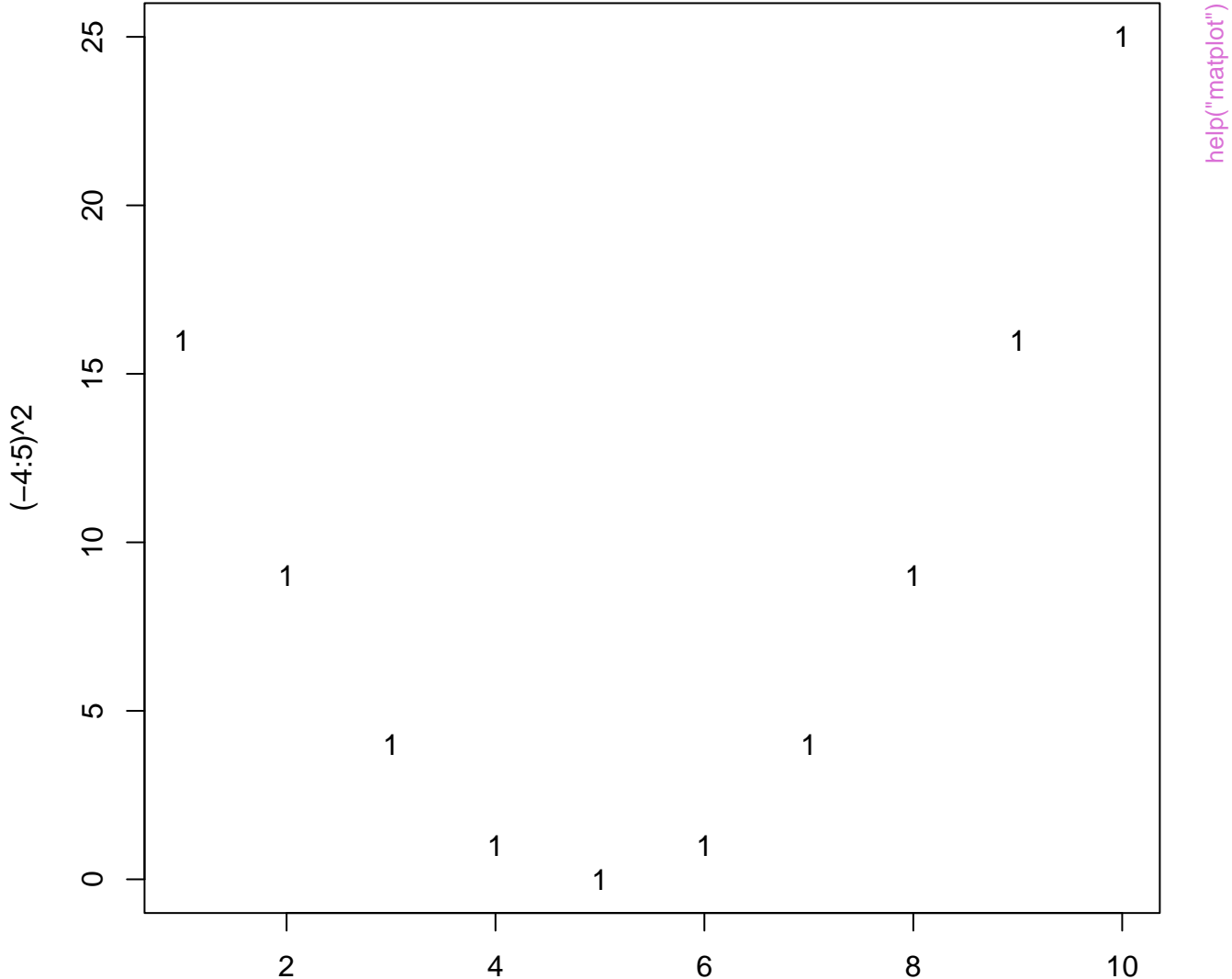
help("legend")



Stopping Distance versus Speed

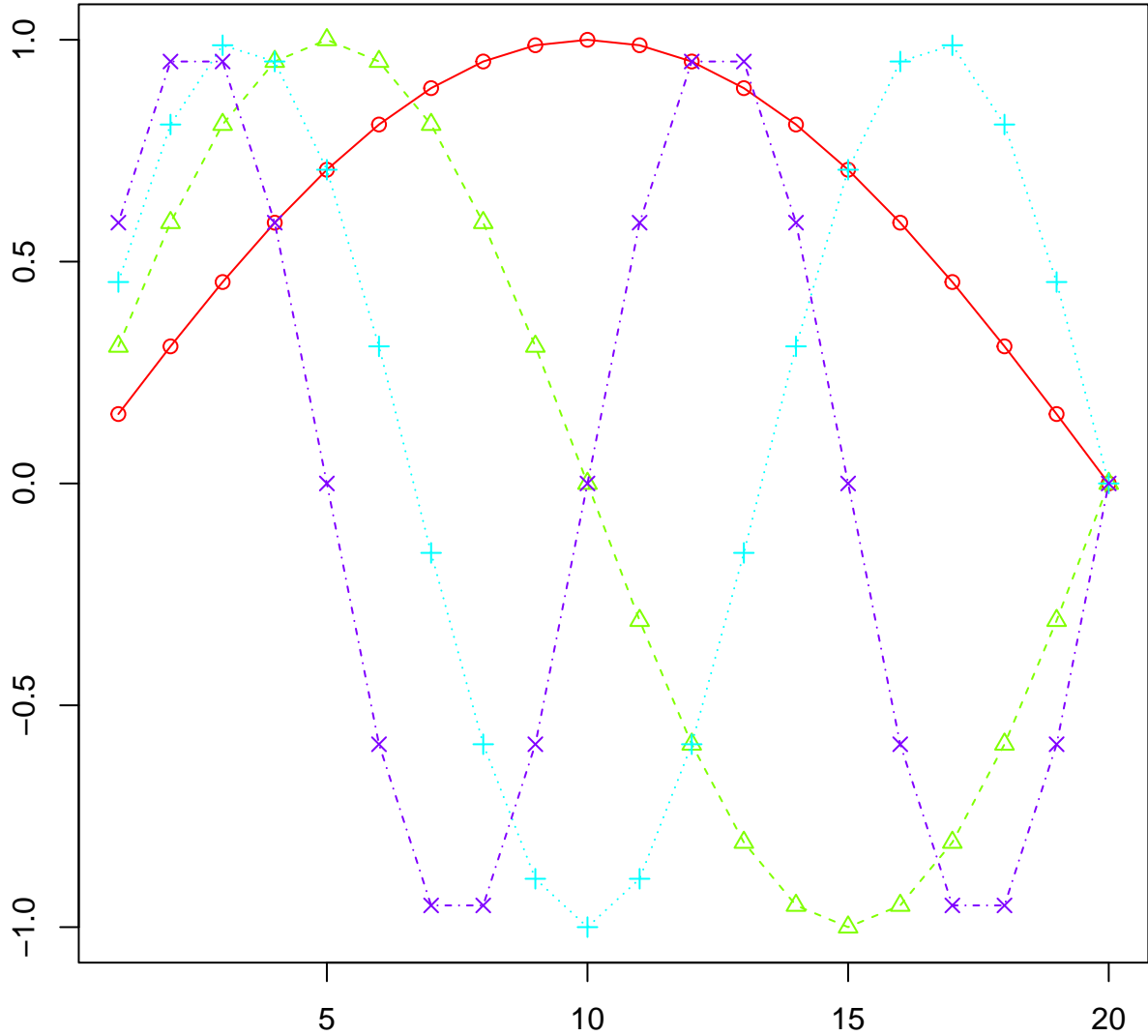


Quadratic



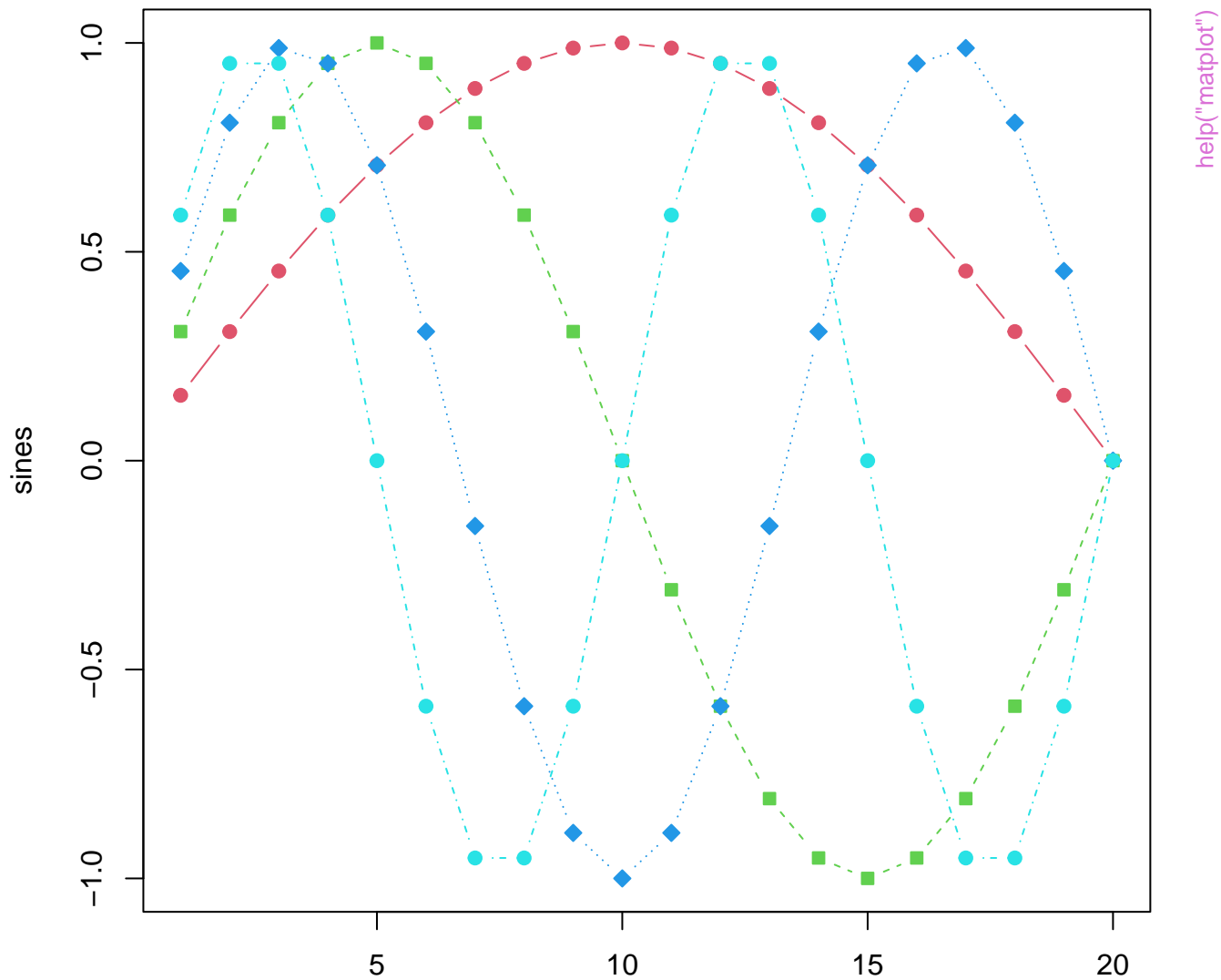
help("matplotlib")

sines



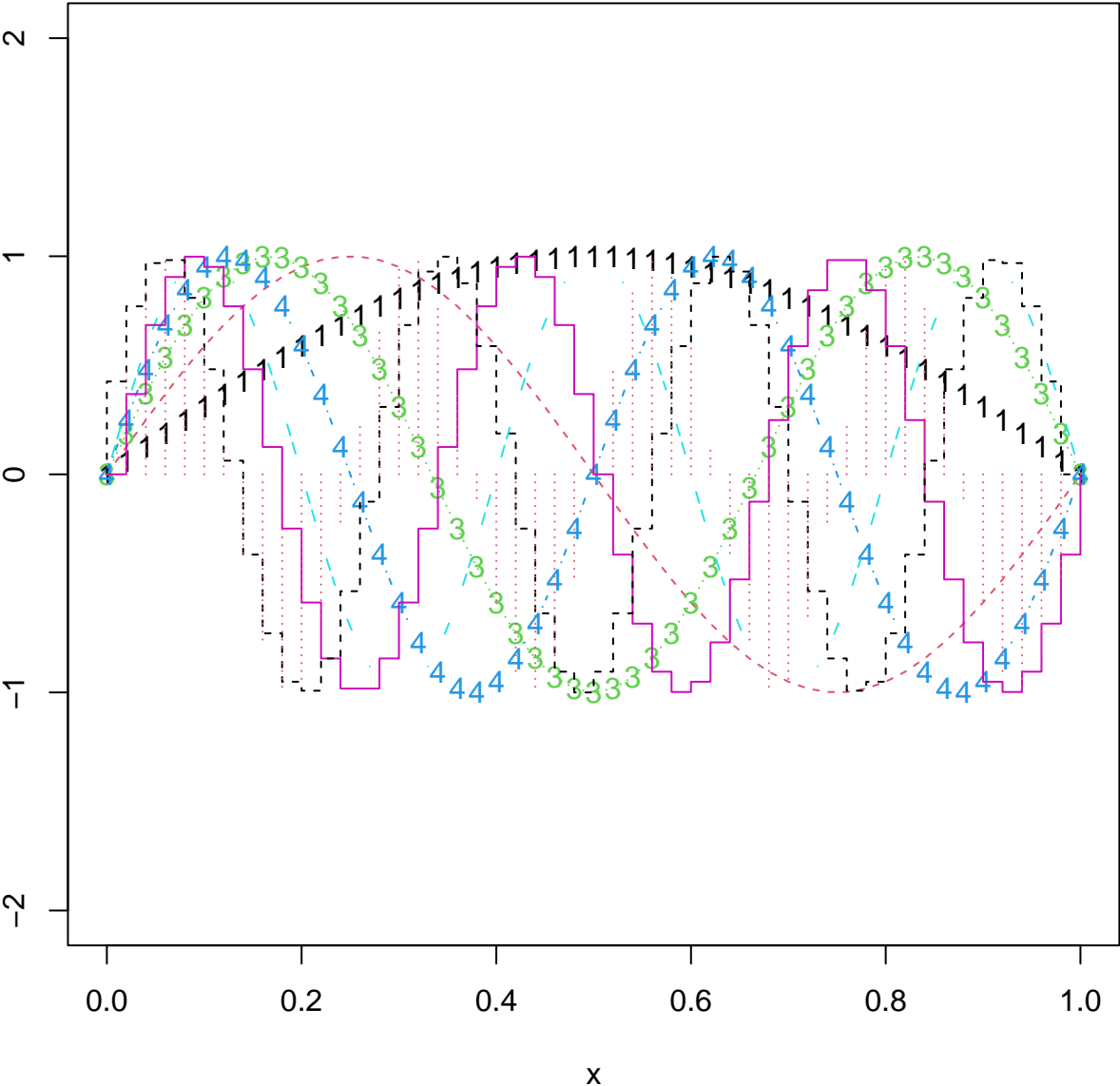
help("matplotlib")

matplot(...., pch = 21:23, bg = 2:5)

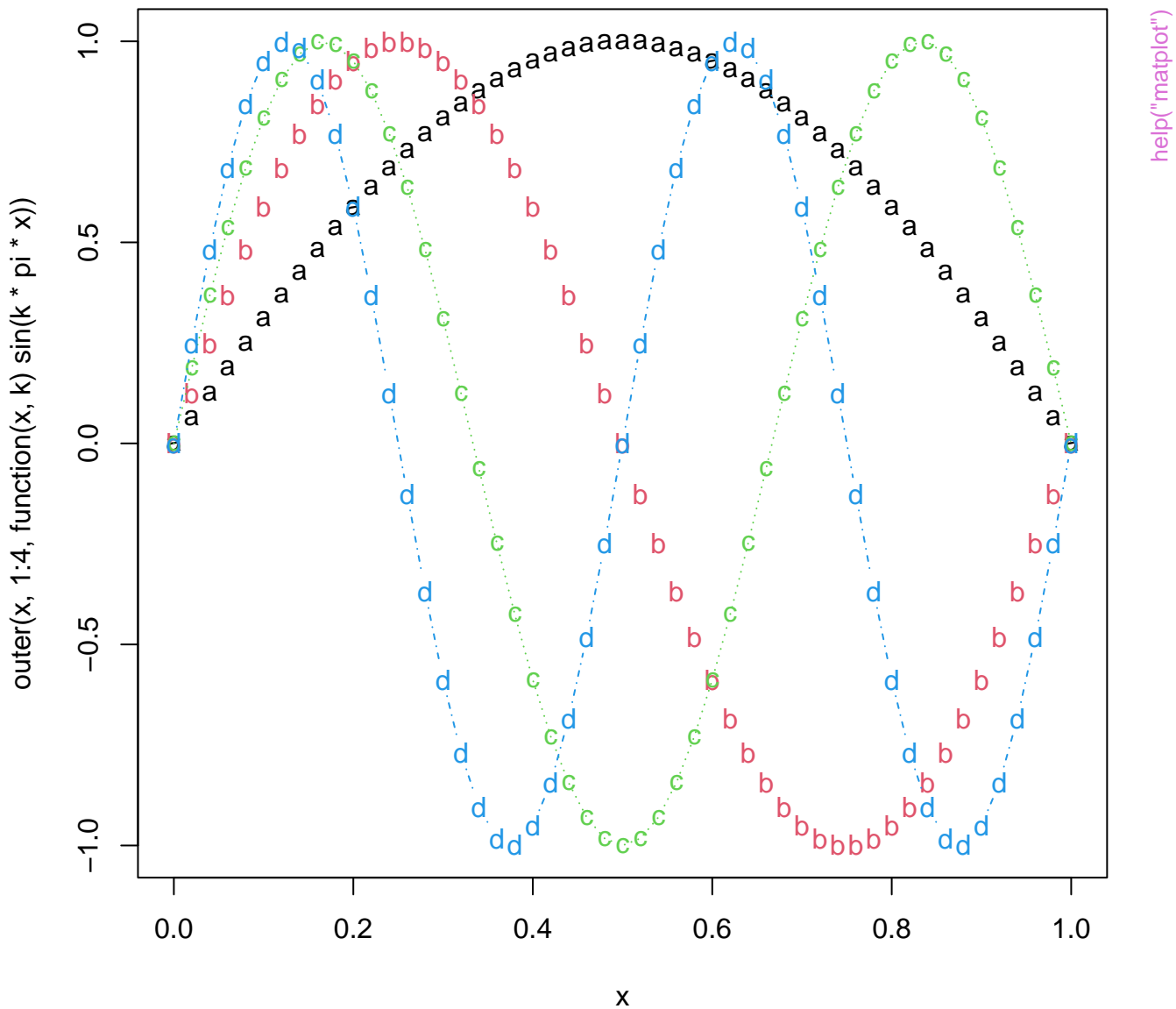


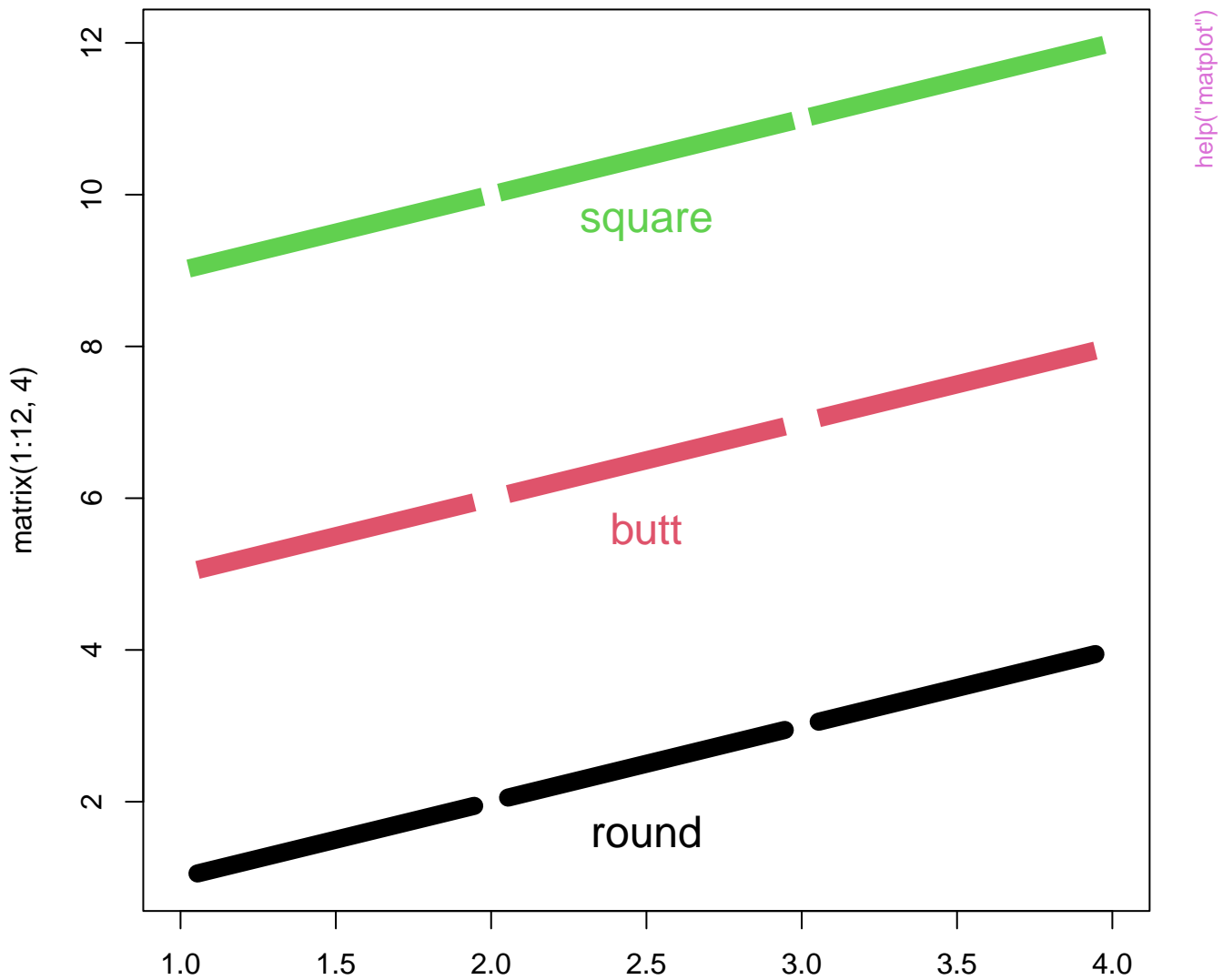
matplot(type = "plobcsSh")

outer(x, 1:8, function(x, k) sin(k * pi * x))

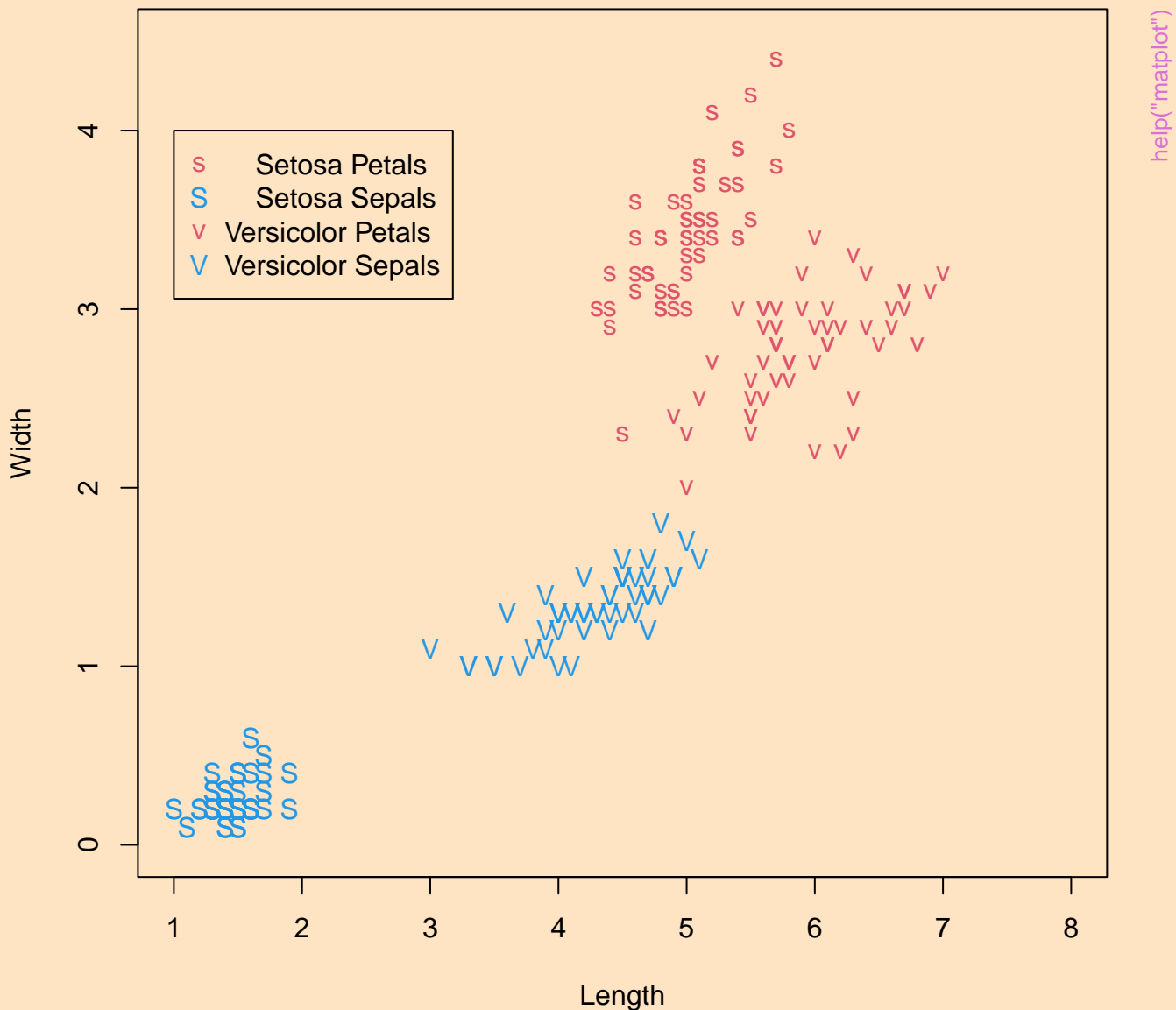


help("matplot")

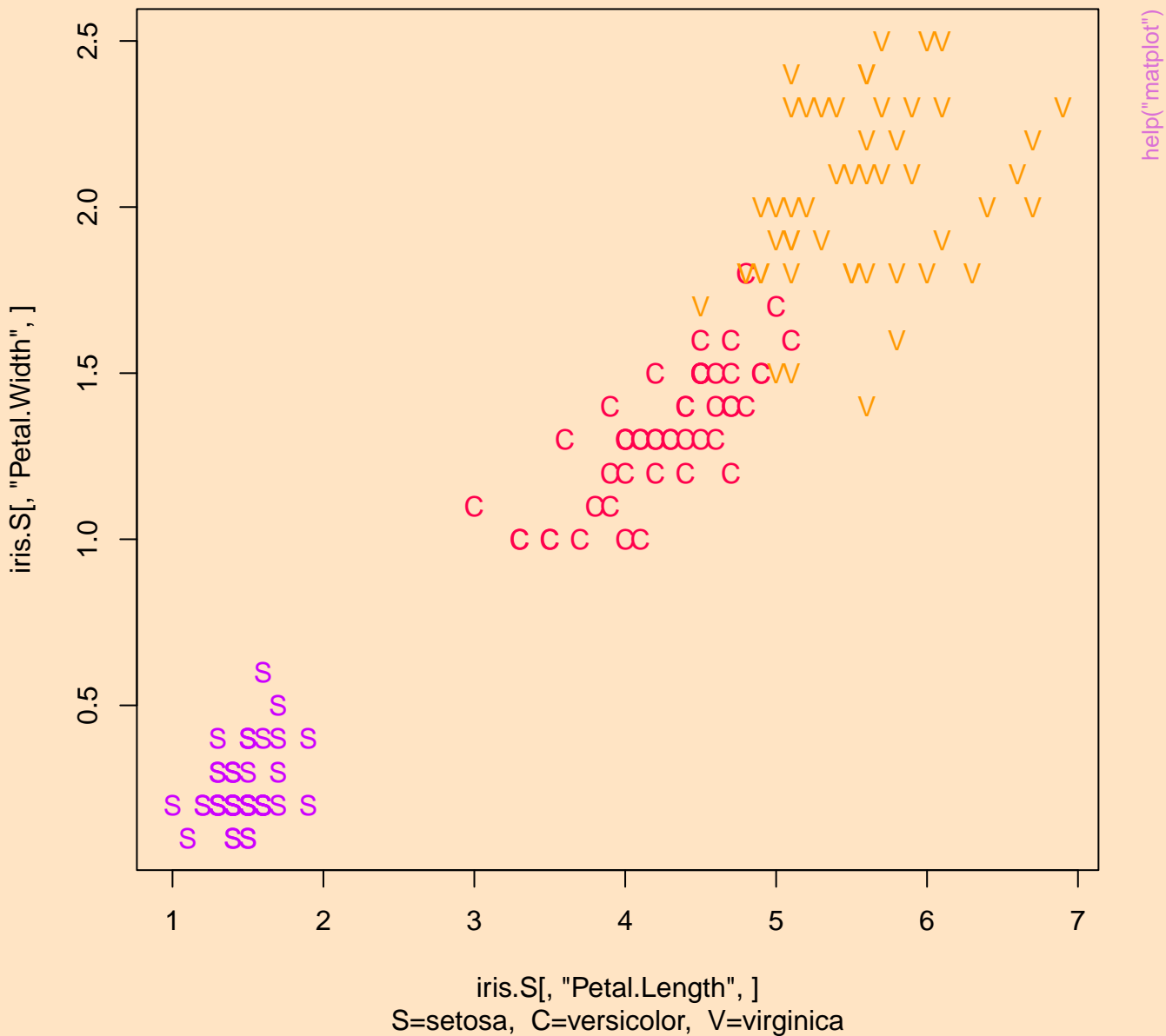




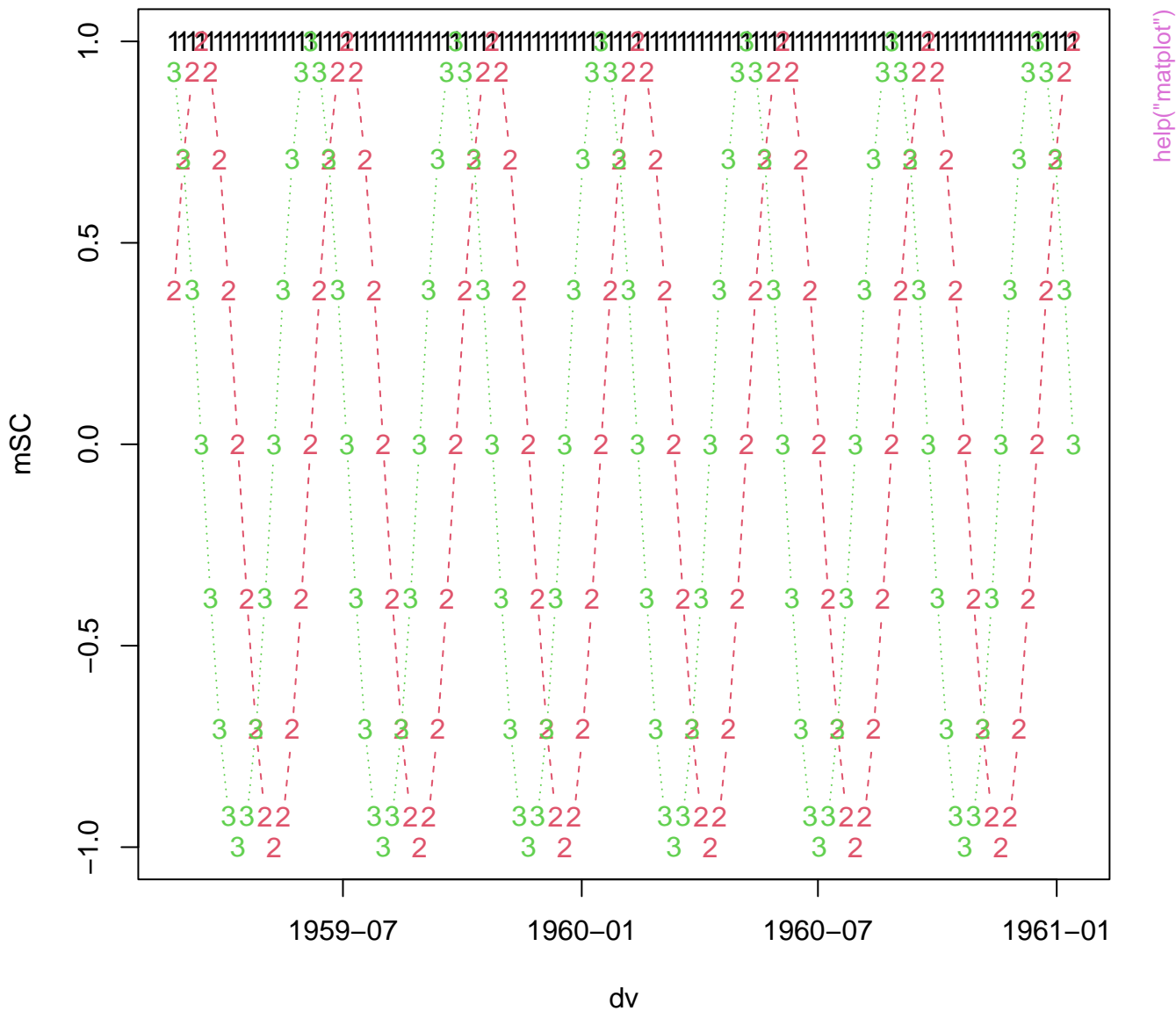
Petal and Sepal Dimensions in Iris Blossoms



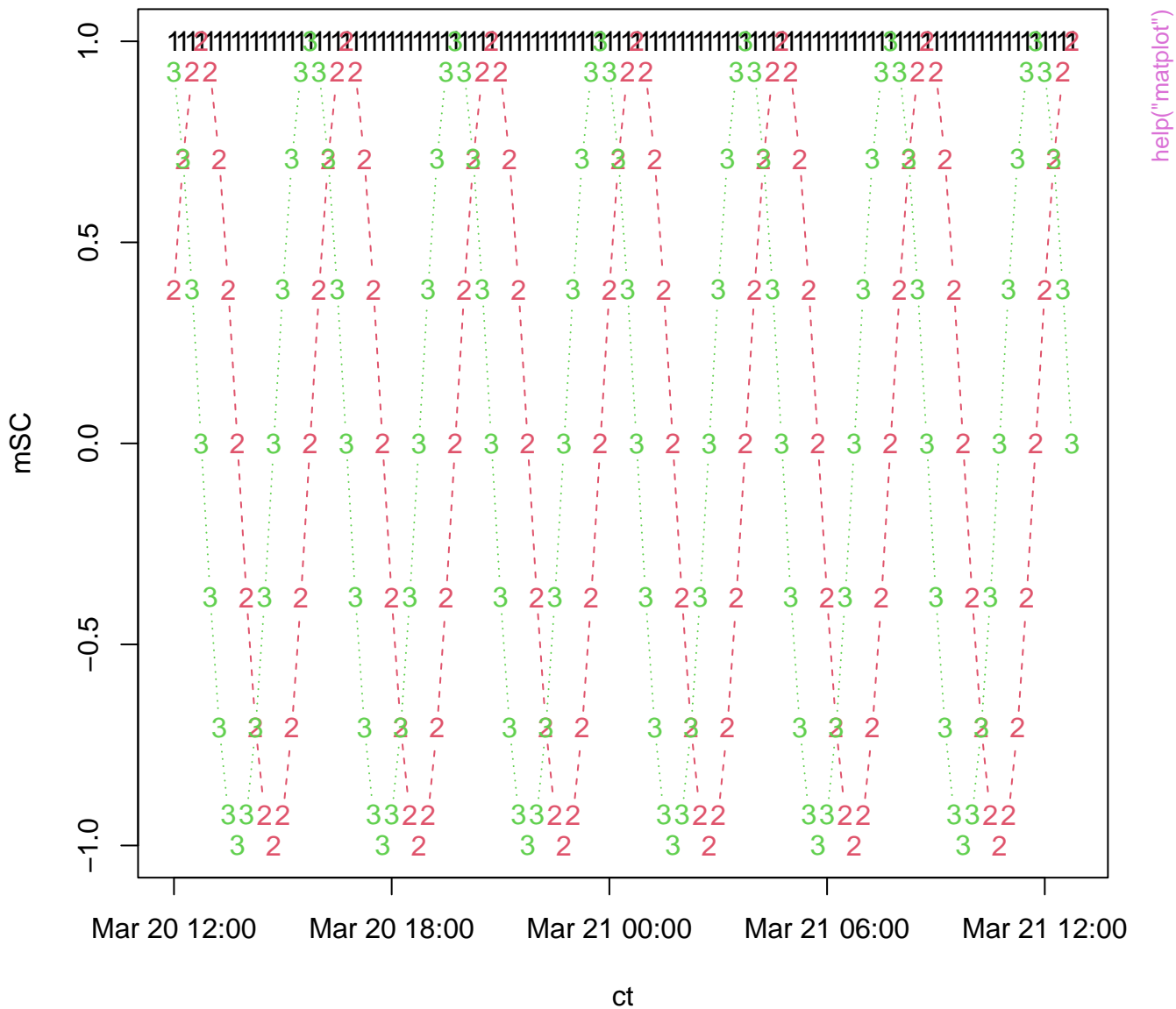
Fisher's Iris Data



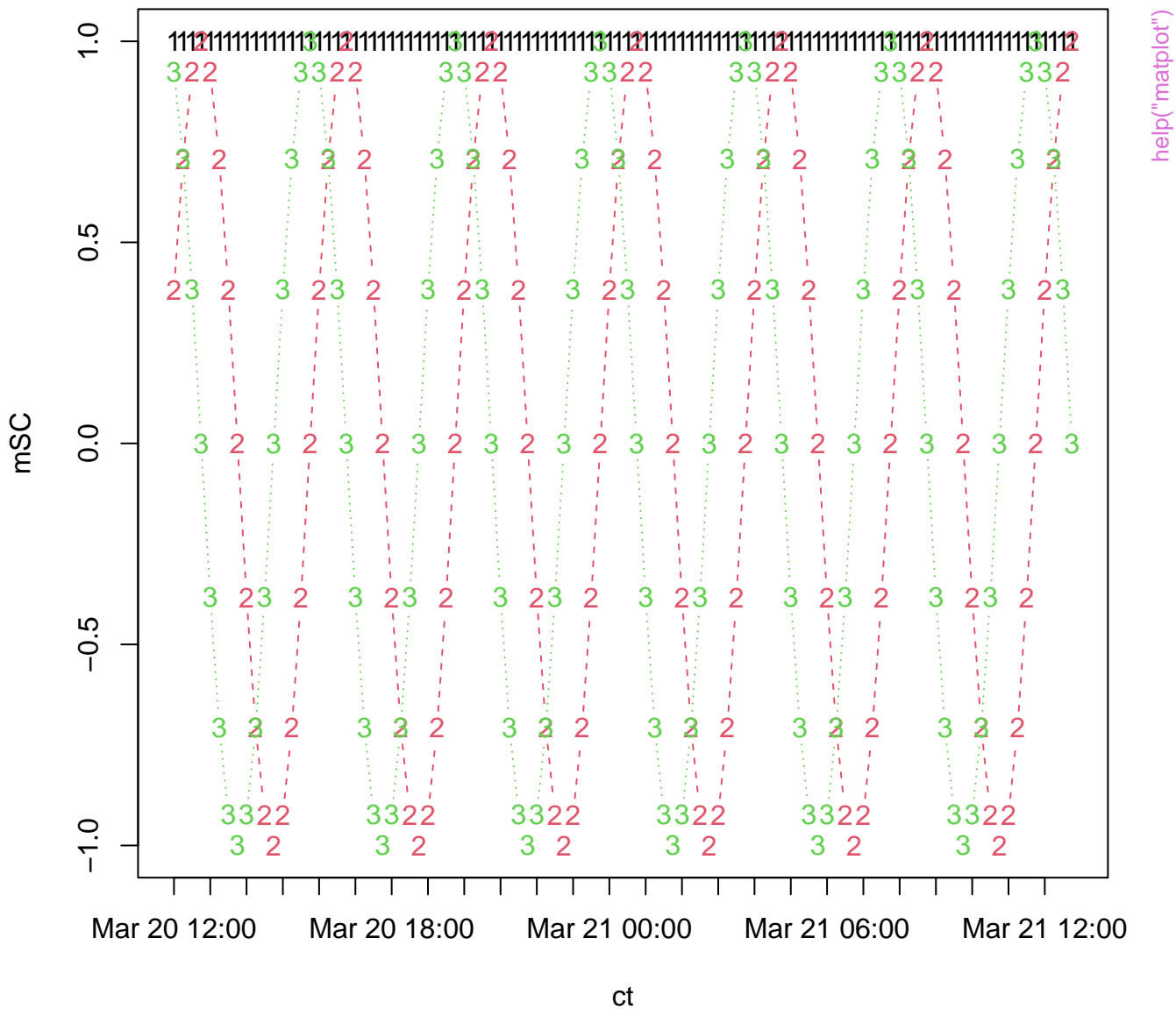
matplot(<Date>, y)

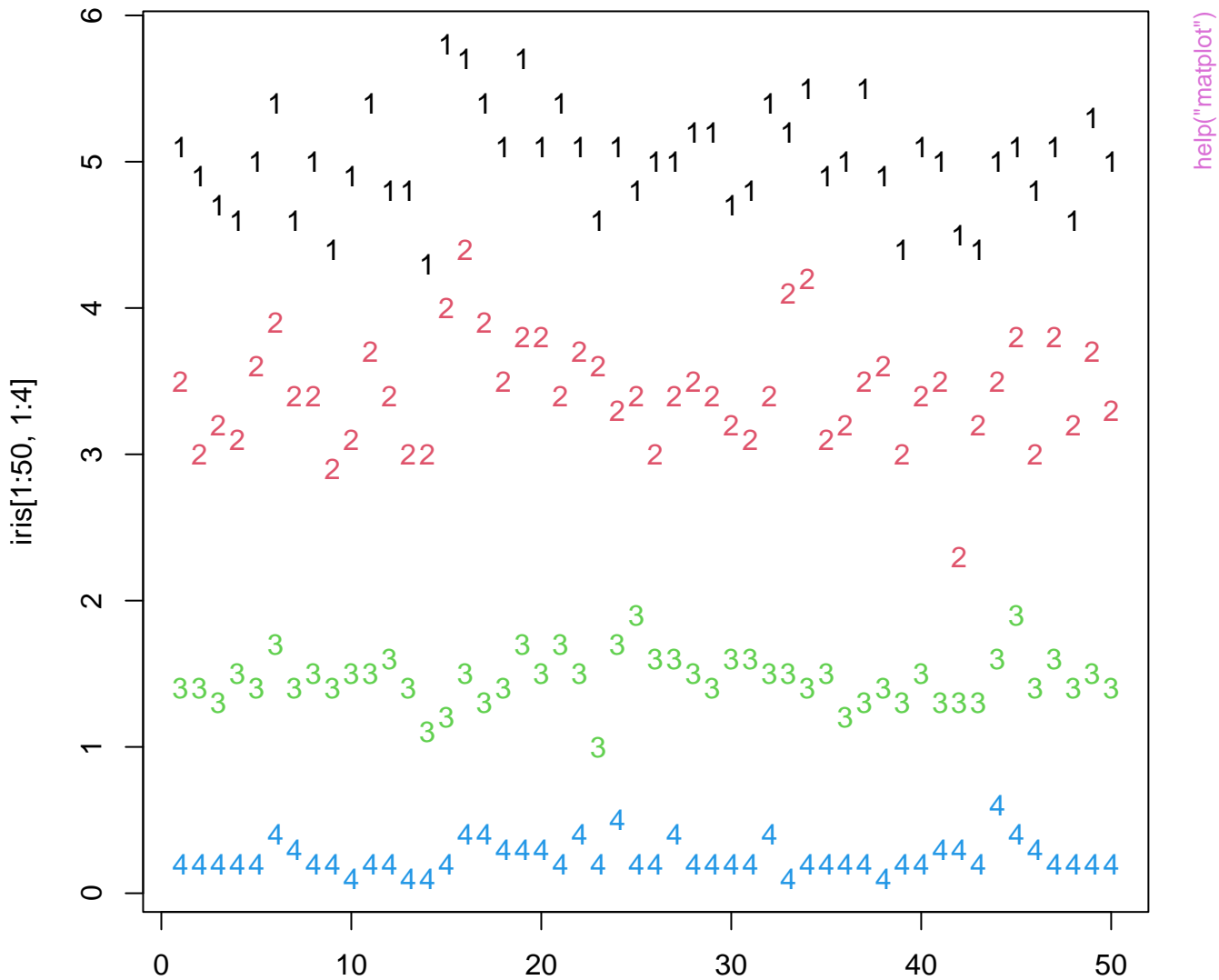


matplot(<POSIXct>, y)

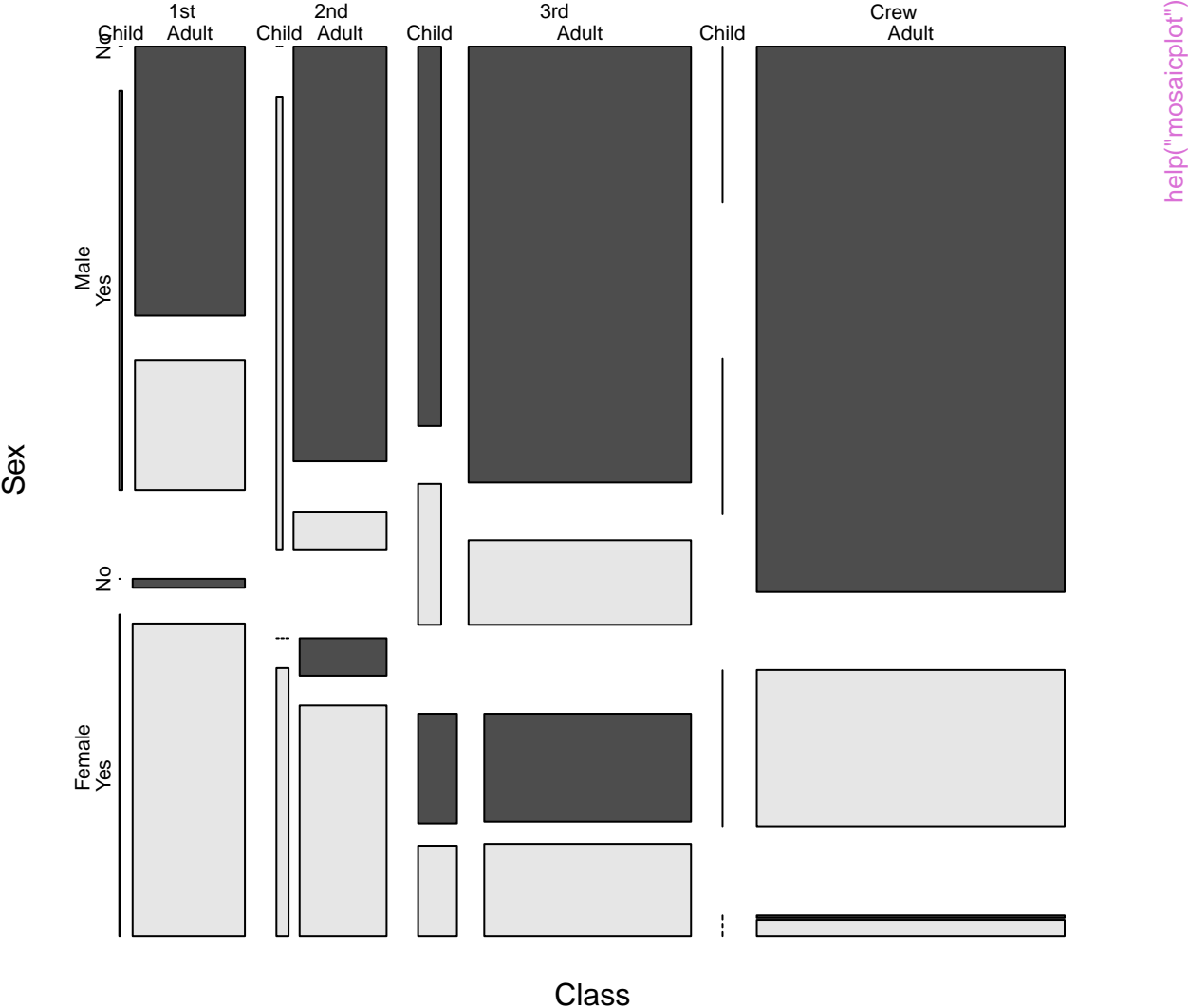


matplot(<POSIXct>, y)

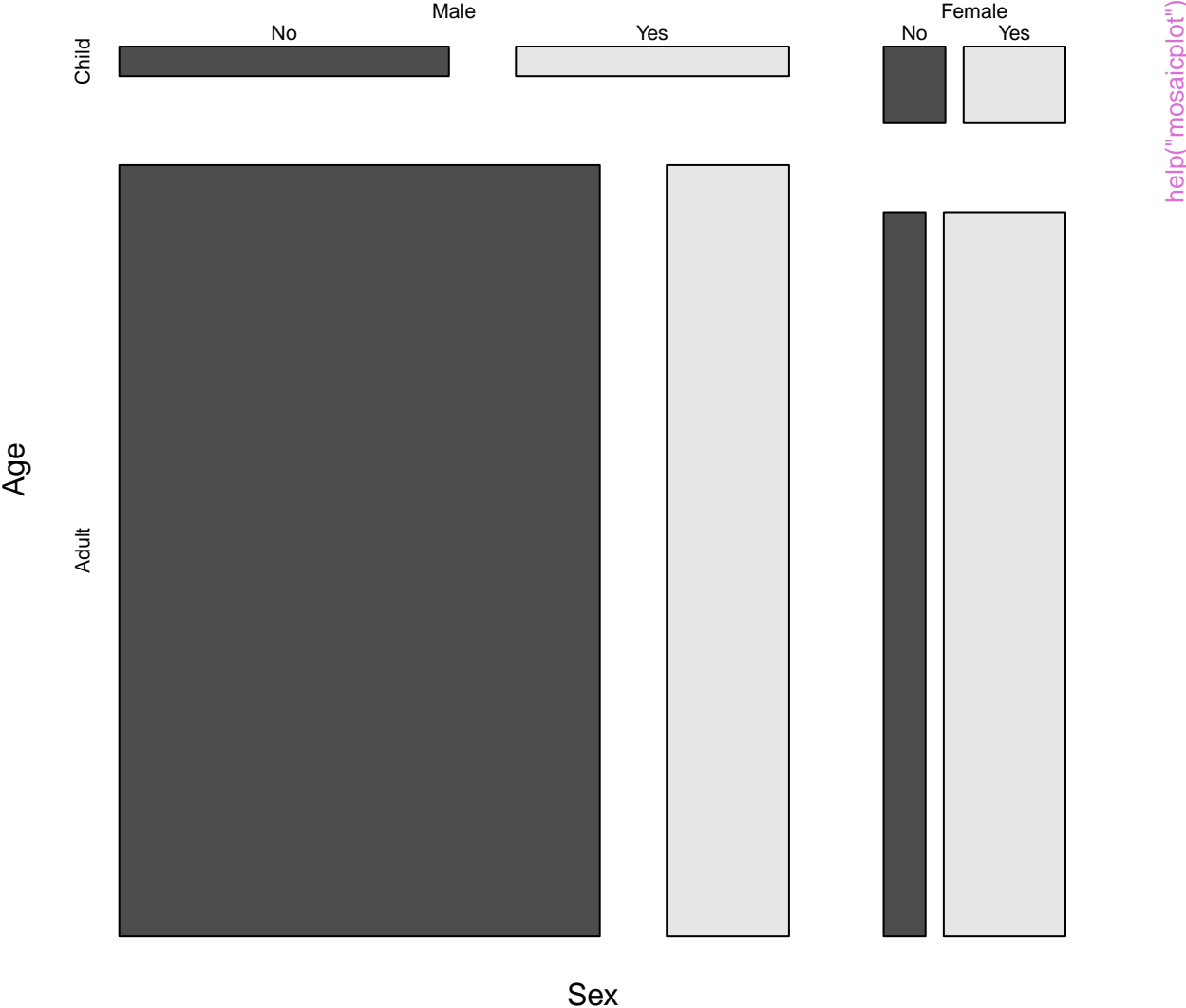




Survival on the Titanic

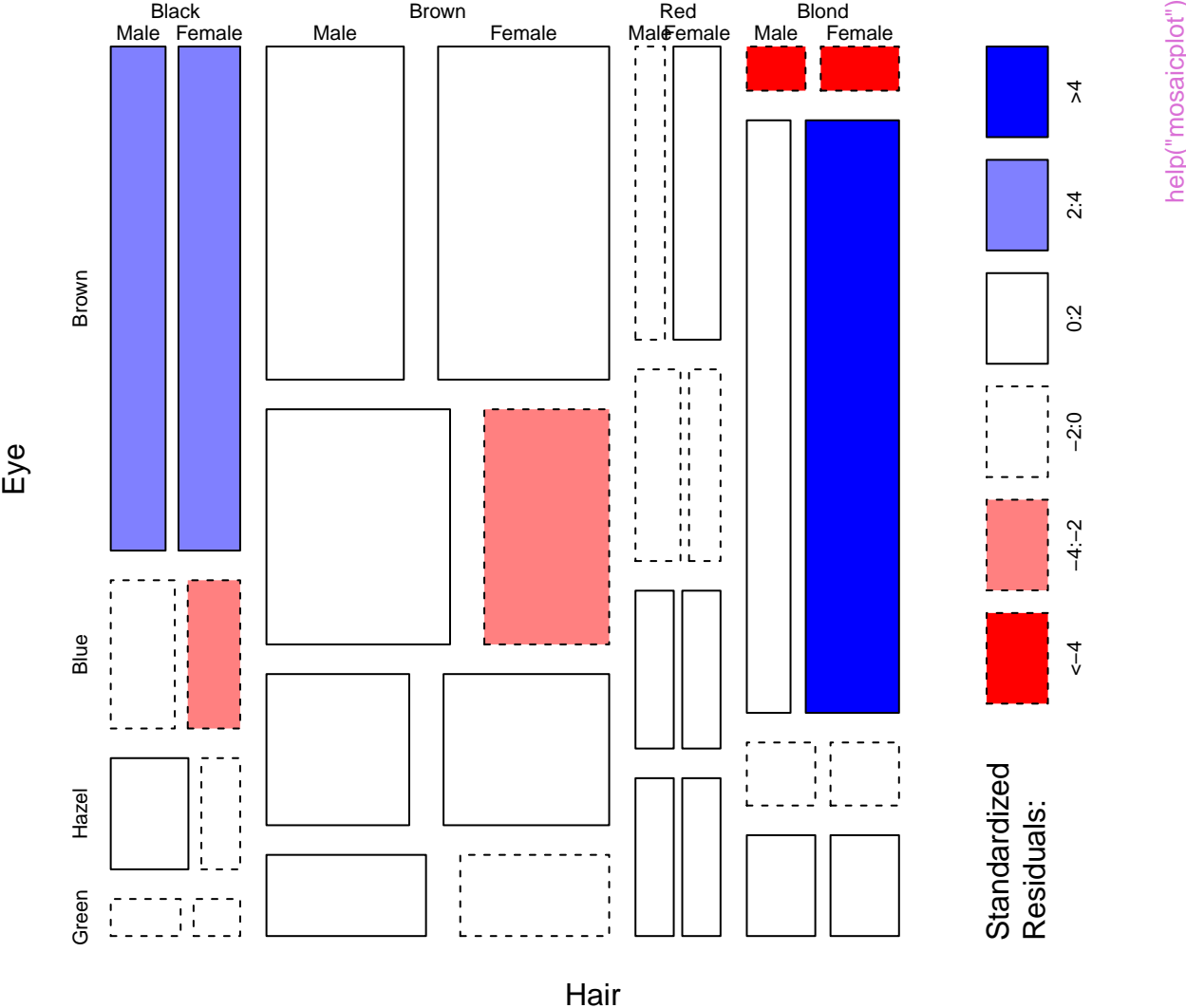


Titanic

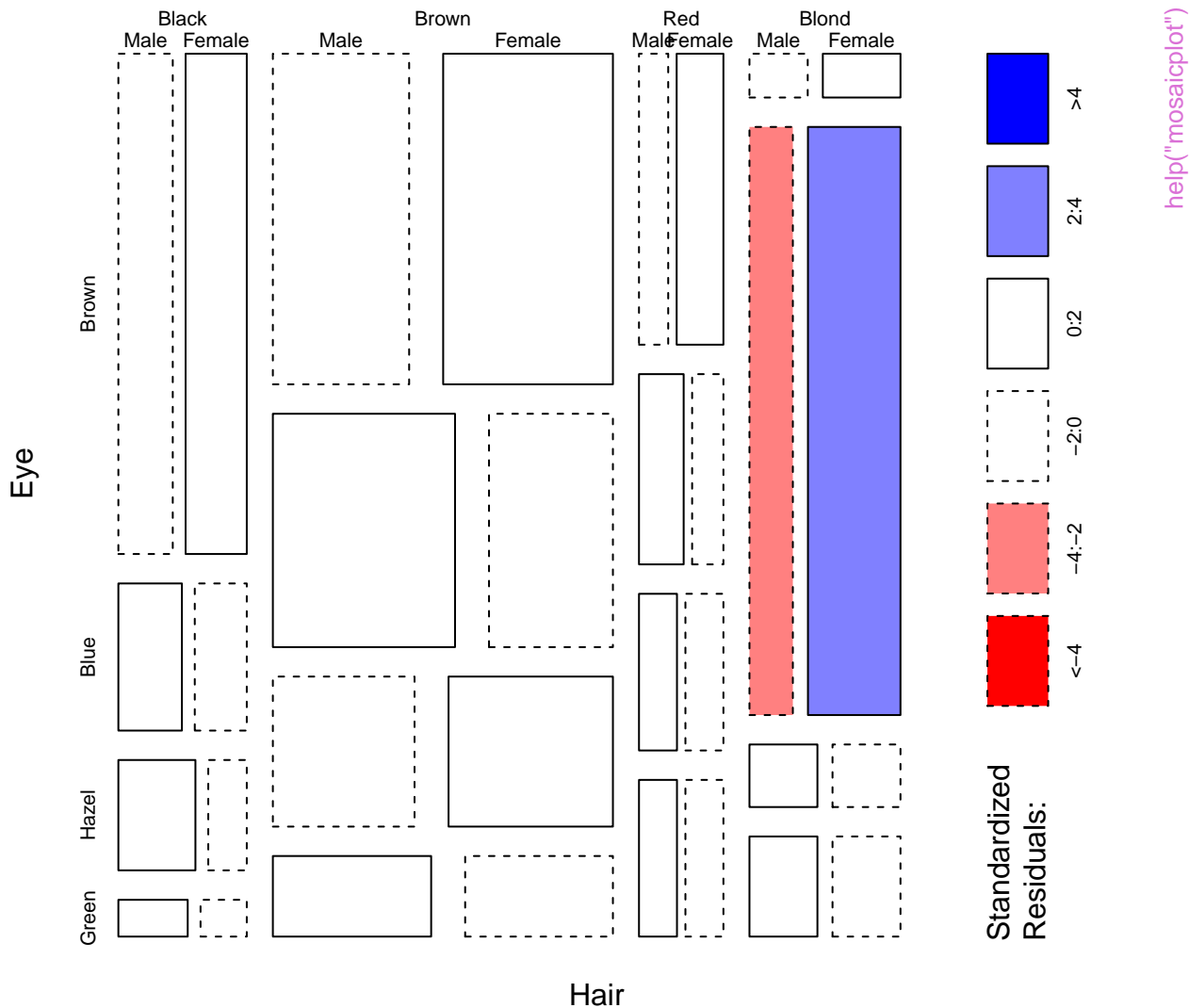


help("mosaicplot")

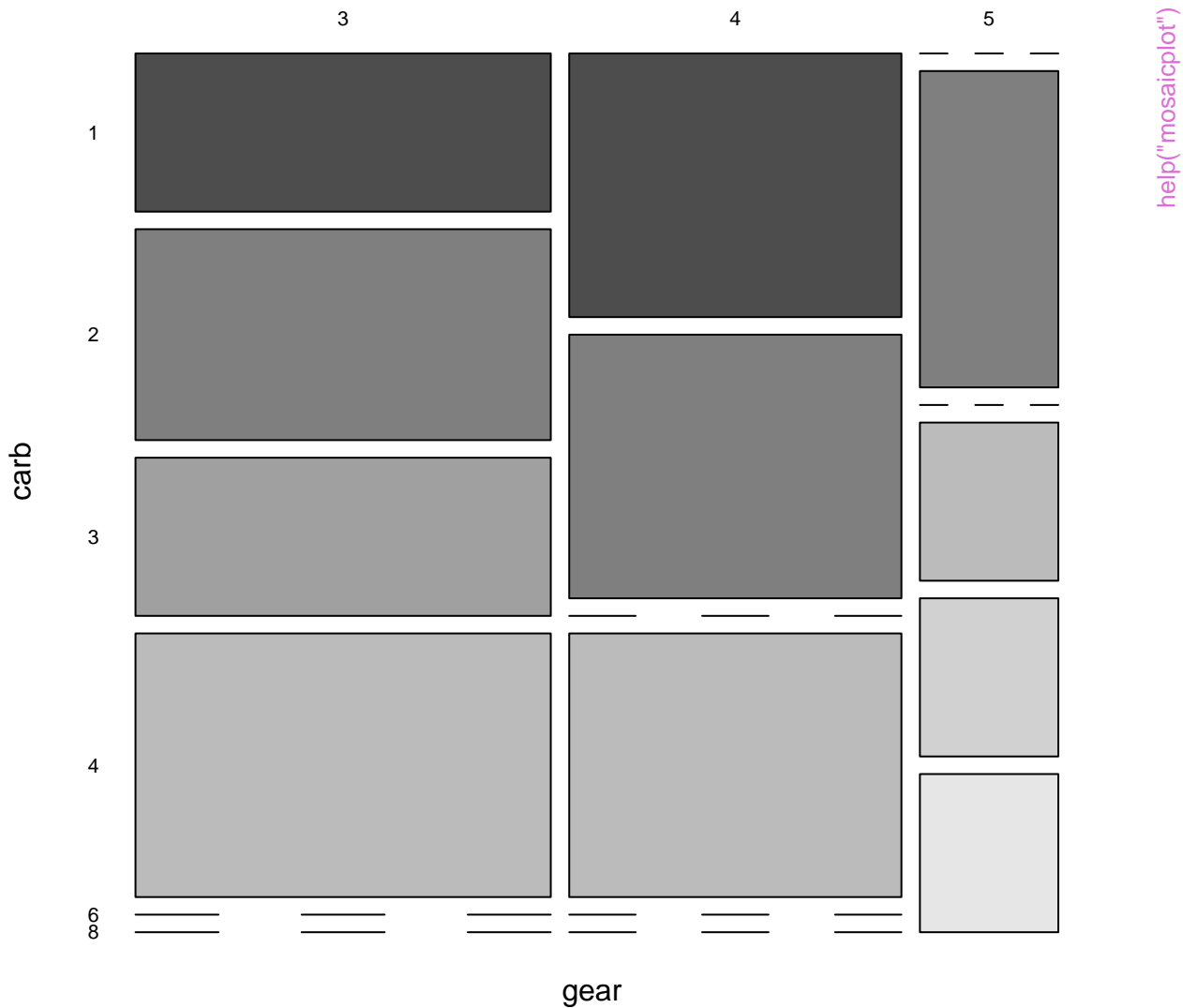
HairEyeColor



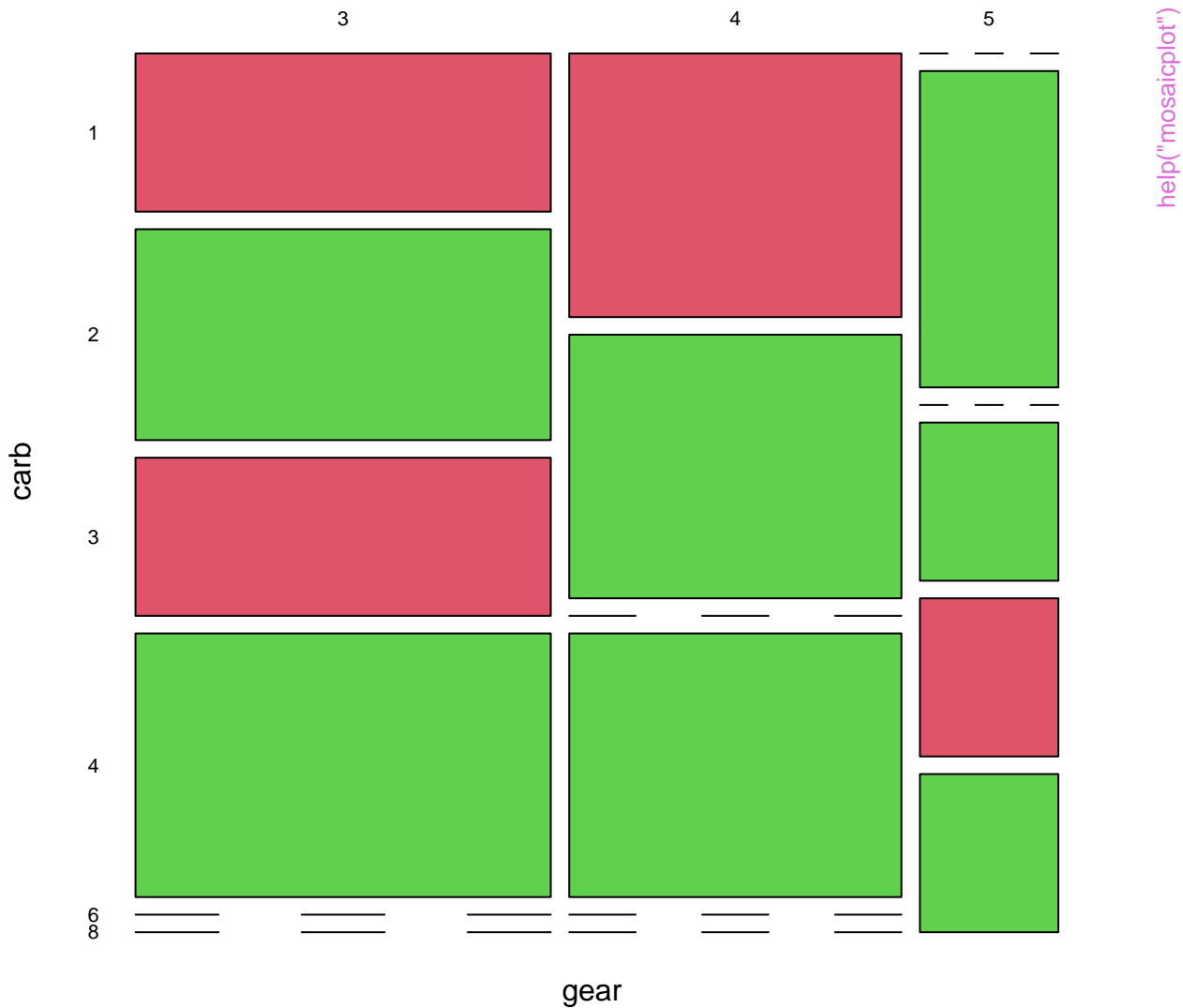
HairEyeColor



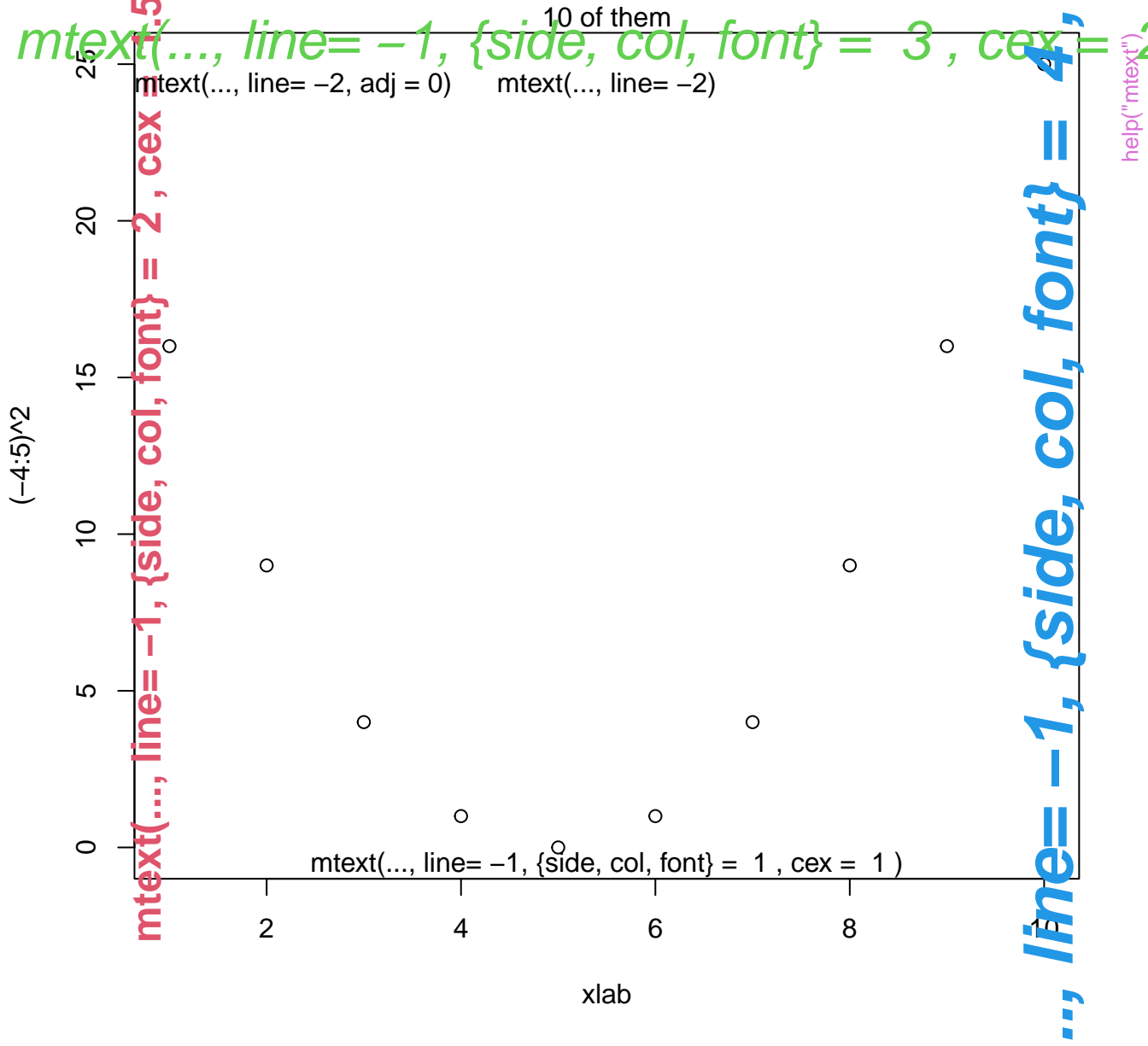
mtcars



mtcars

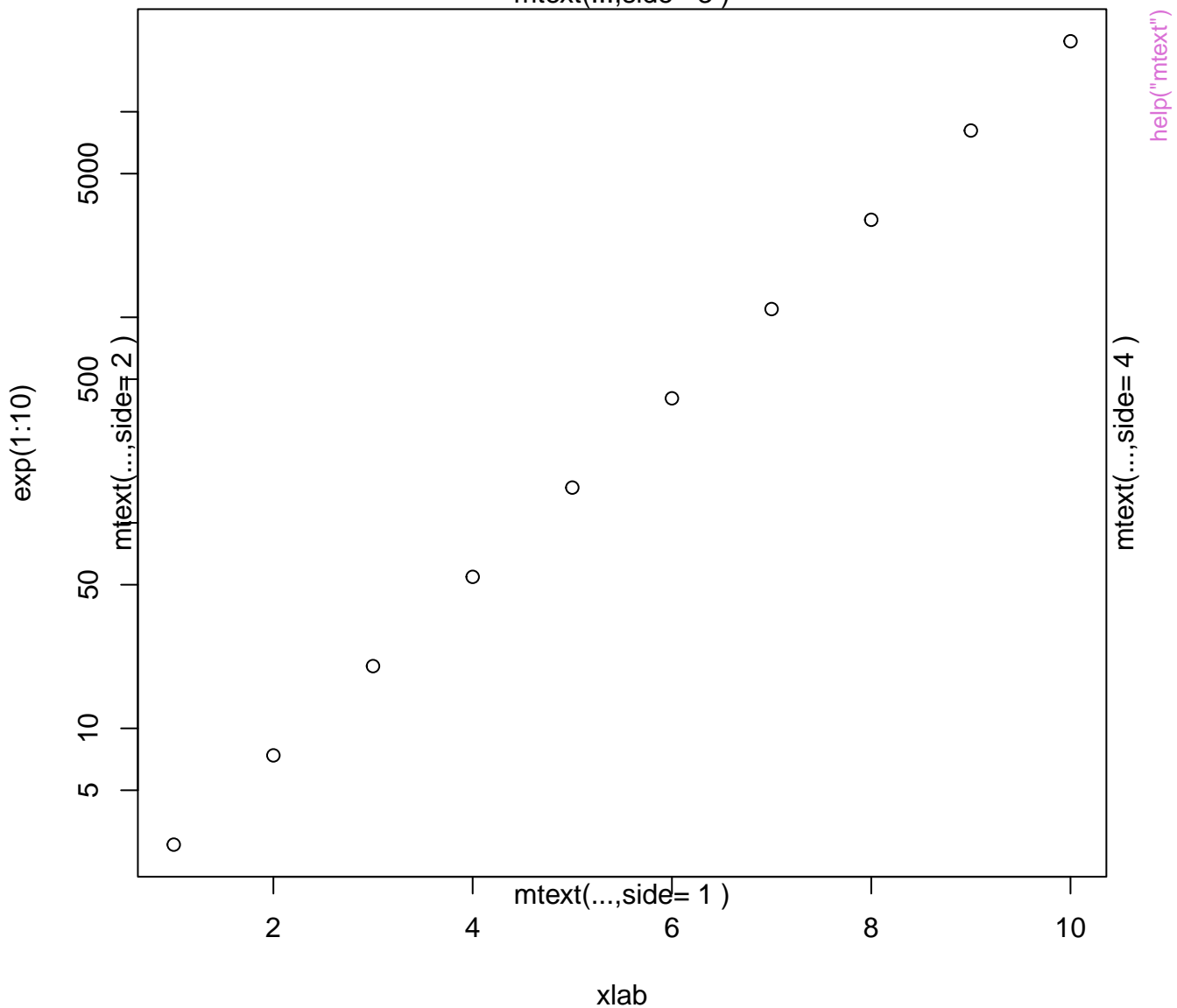


Parabola Points

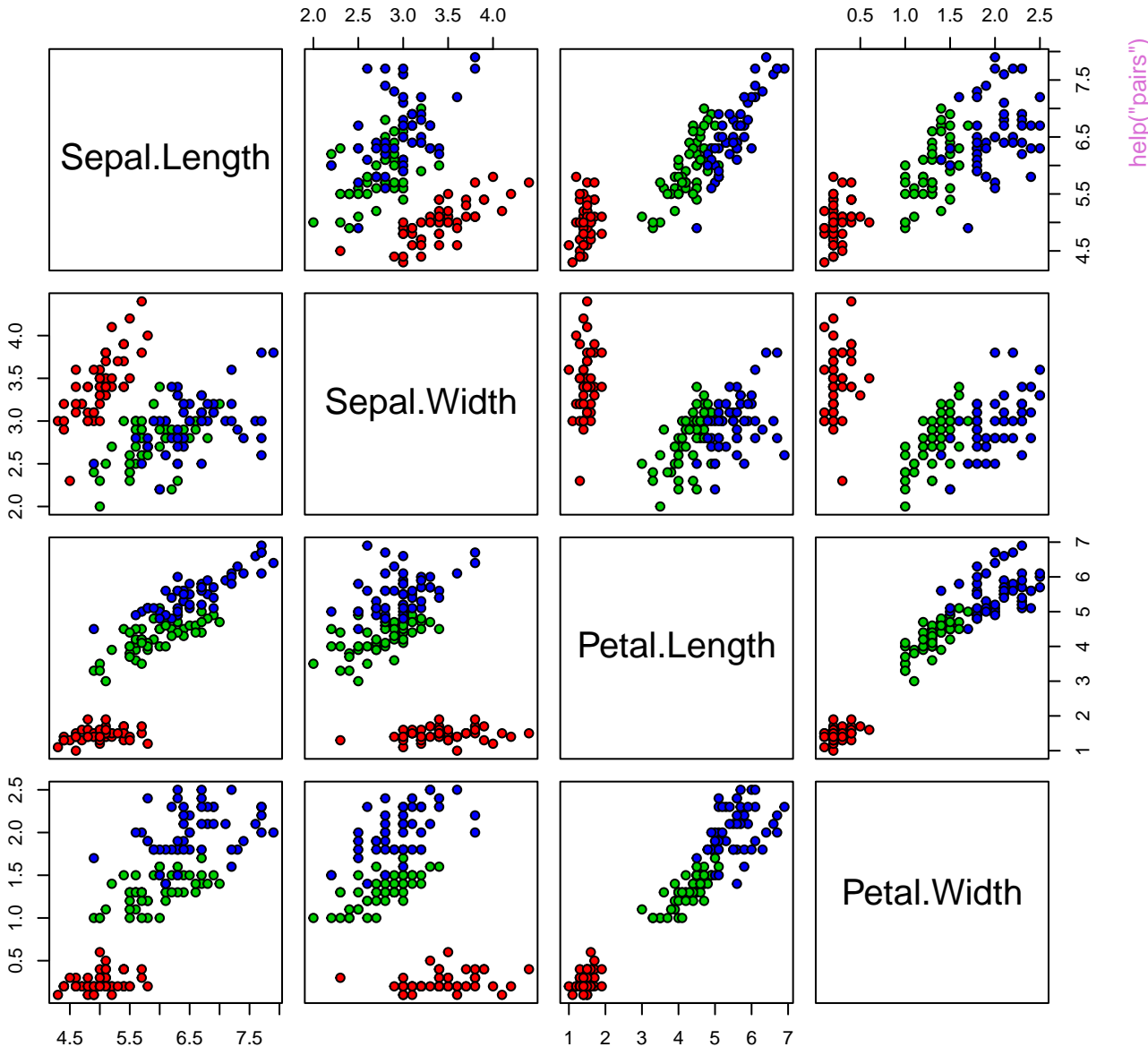


log = "y"

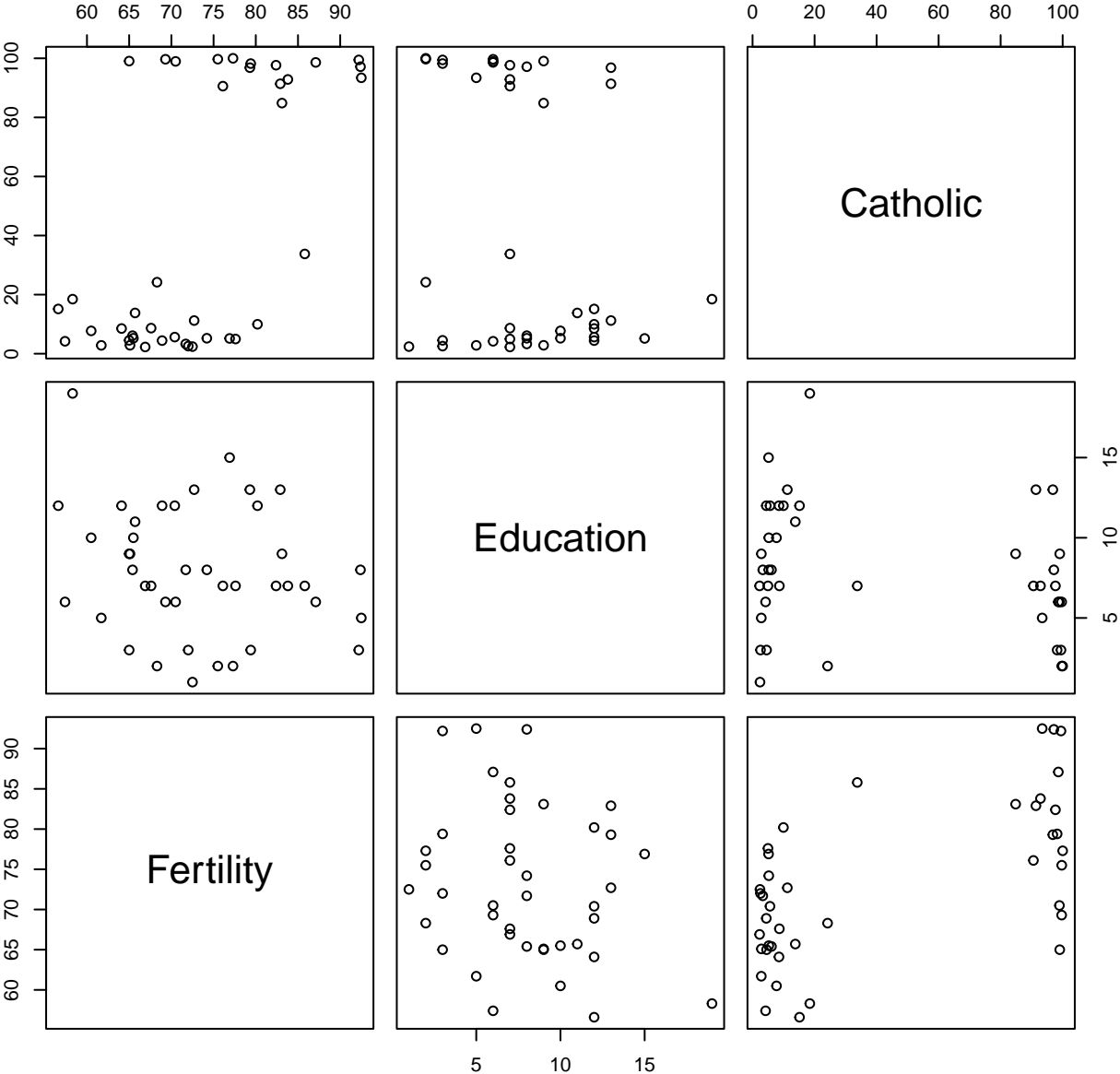
`mtext(...,side= 3)`

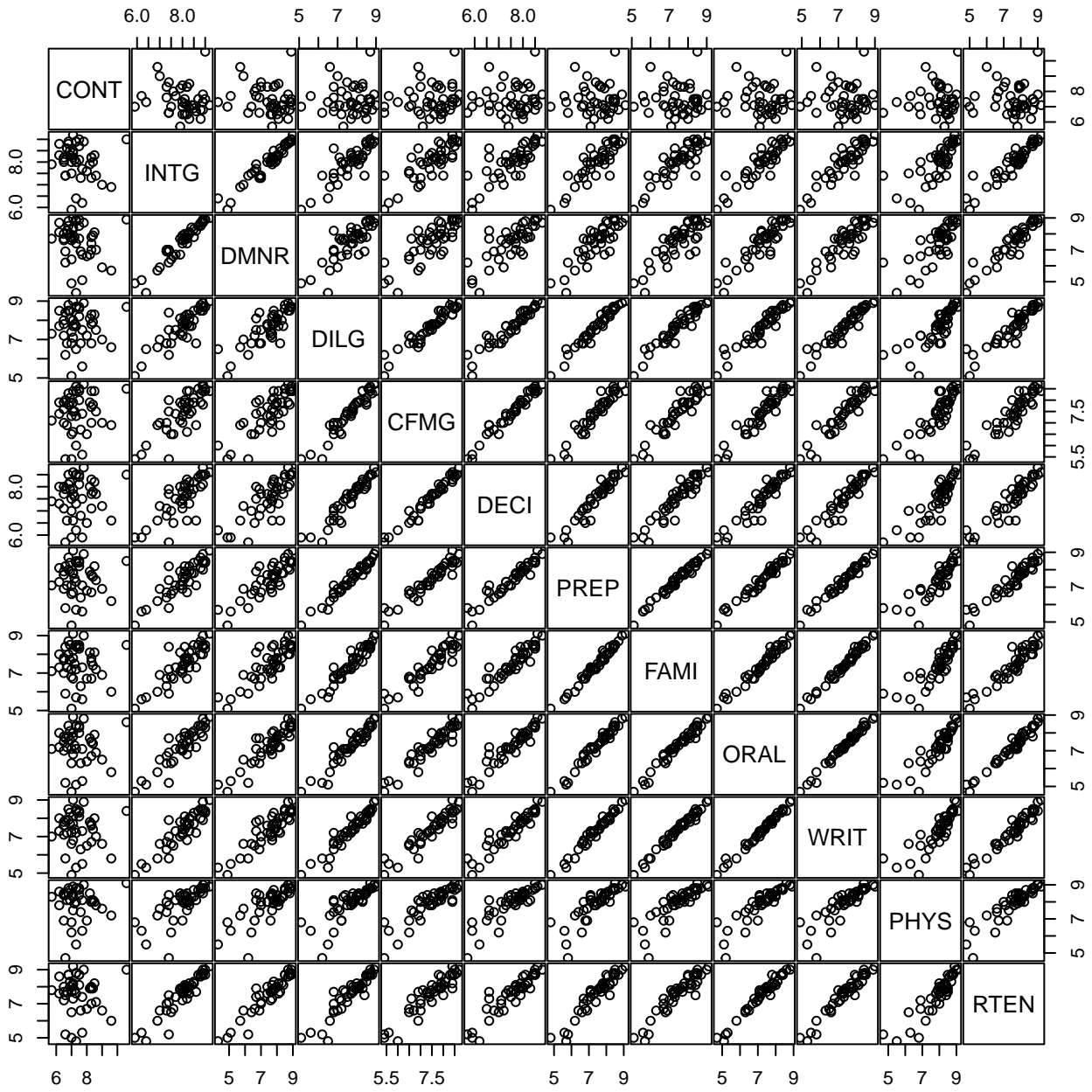


Anderson's Iris Data -- 3 species

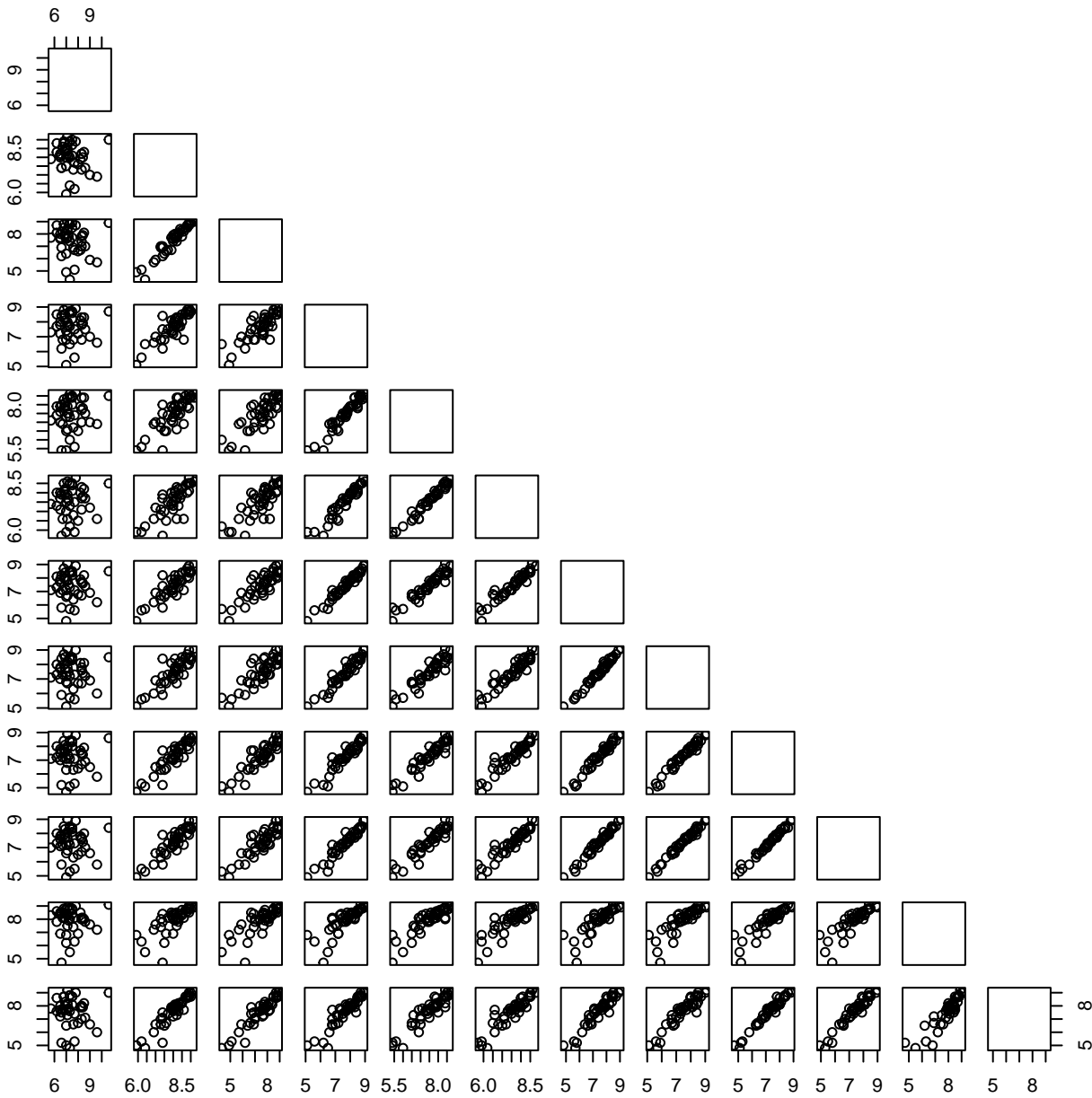


Swiss data, Education < 20

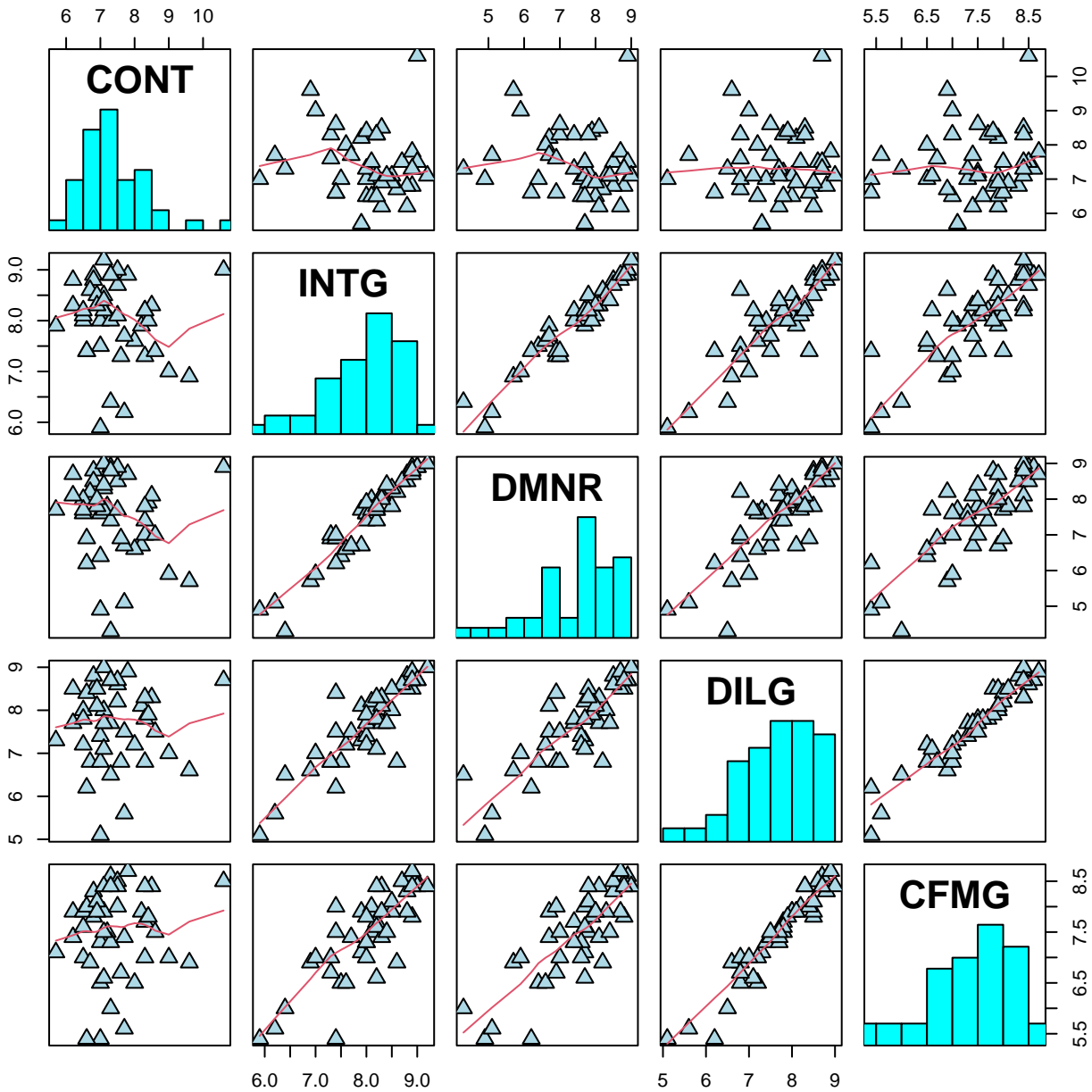




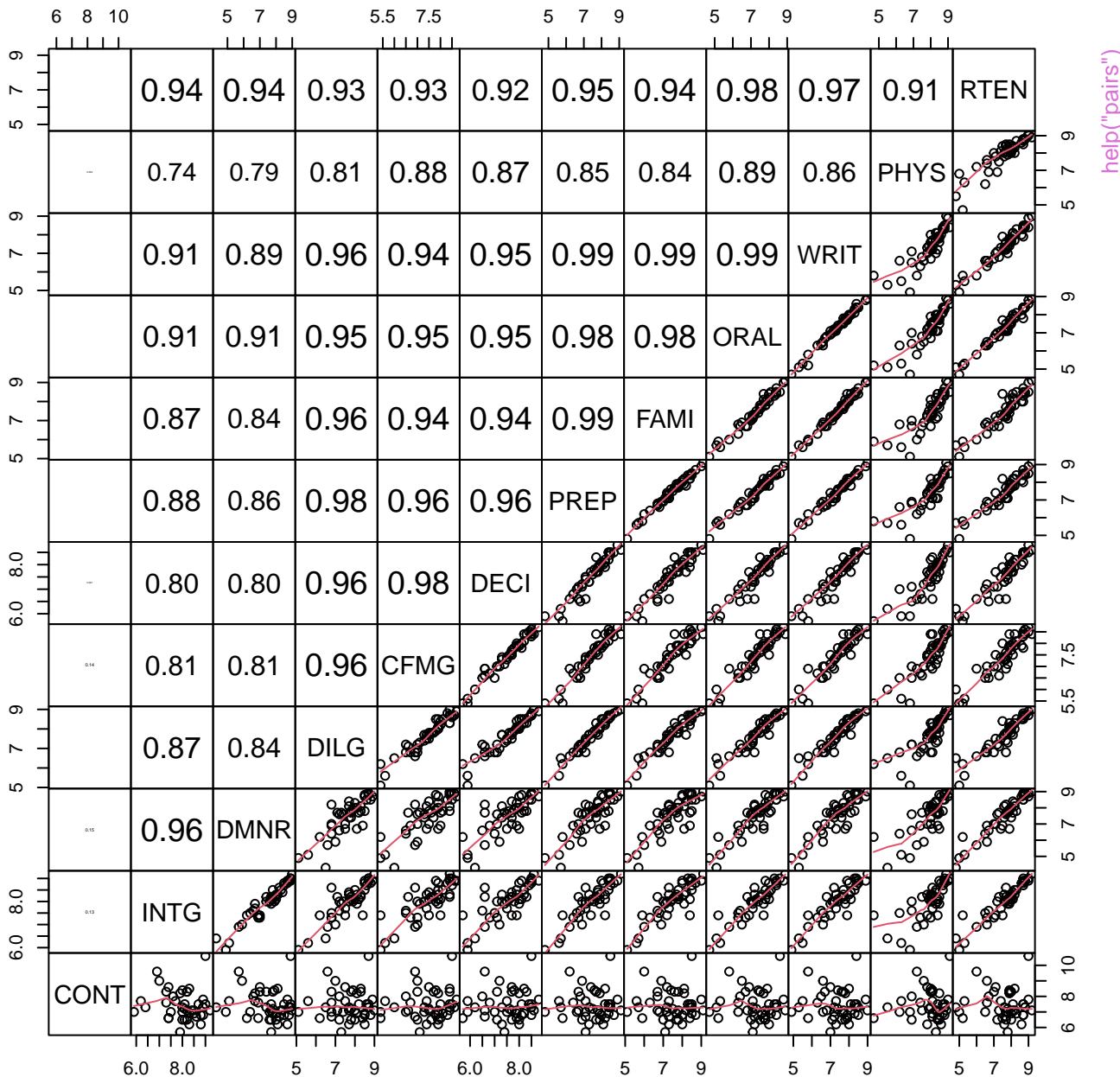
help("pairs")

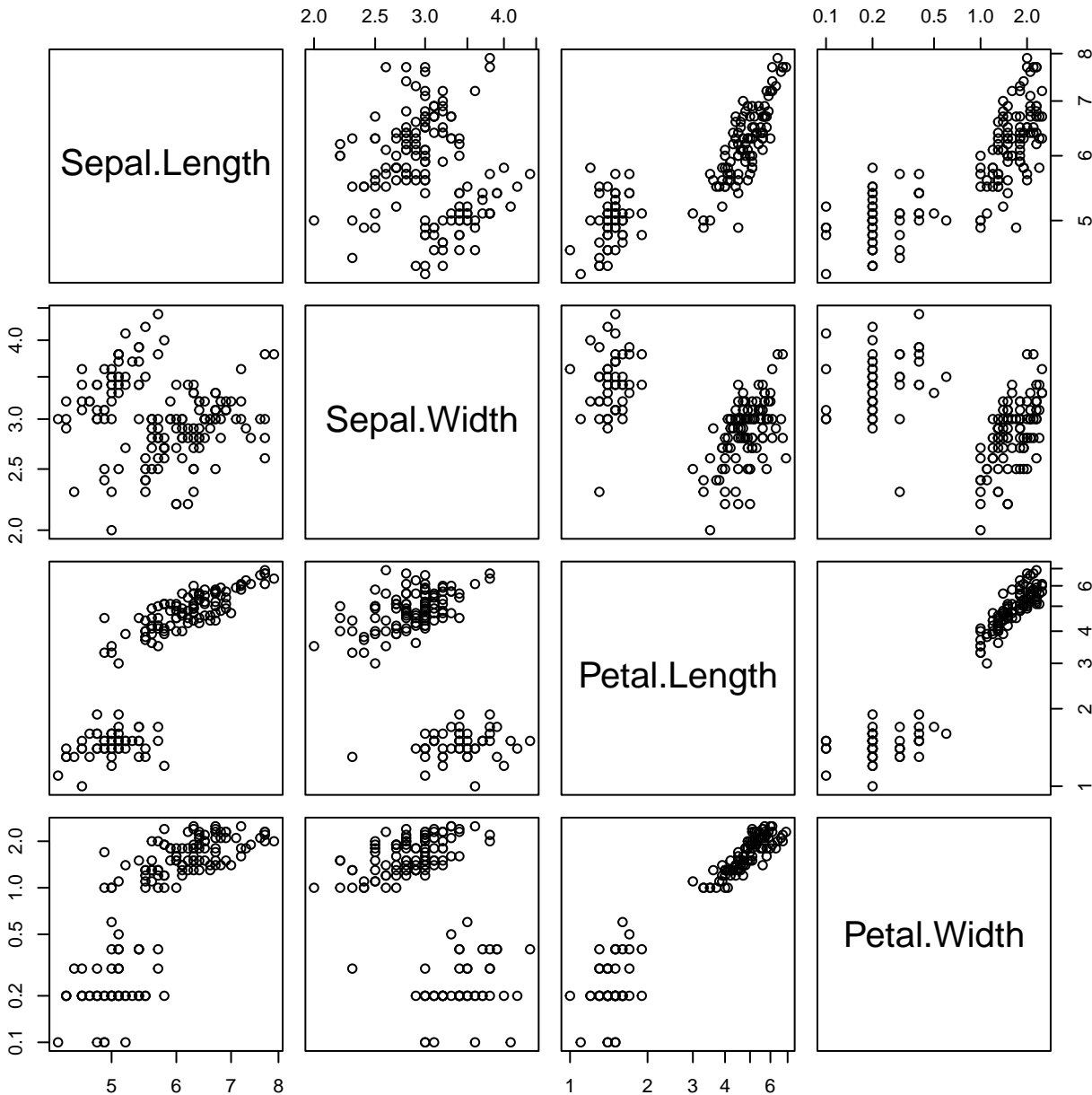


help("pairs")

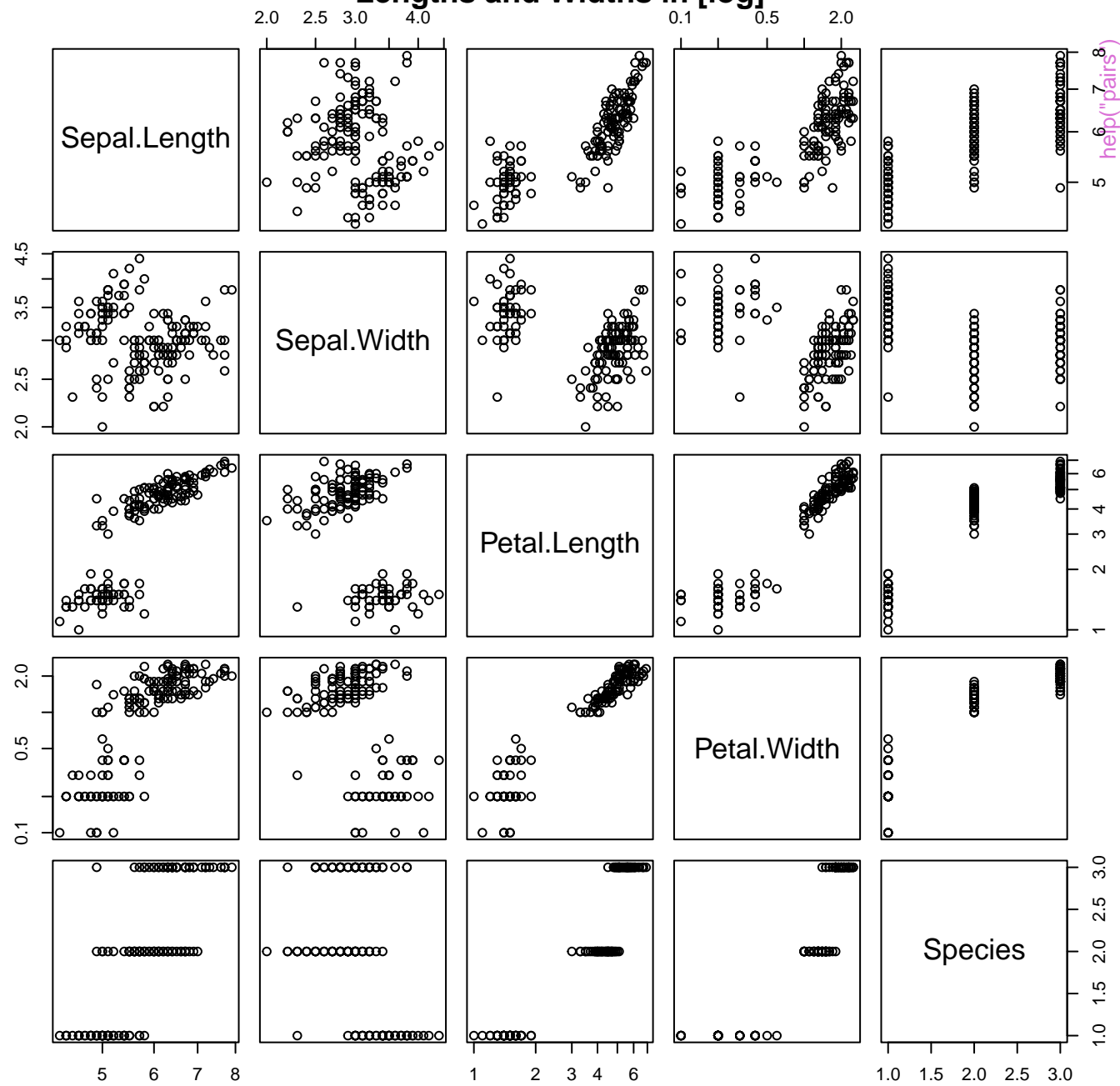


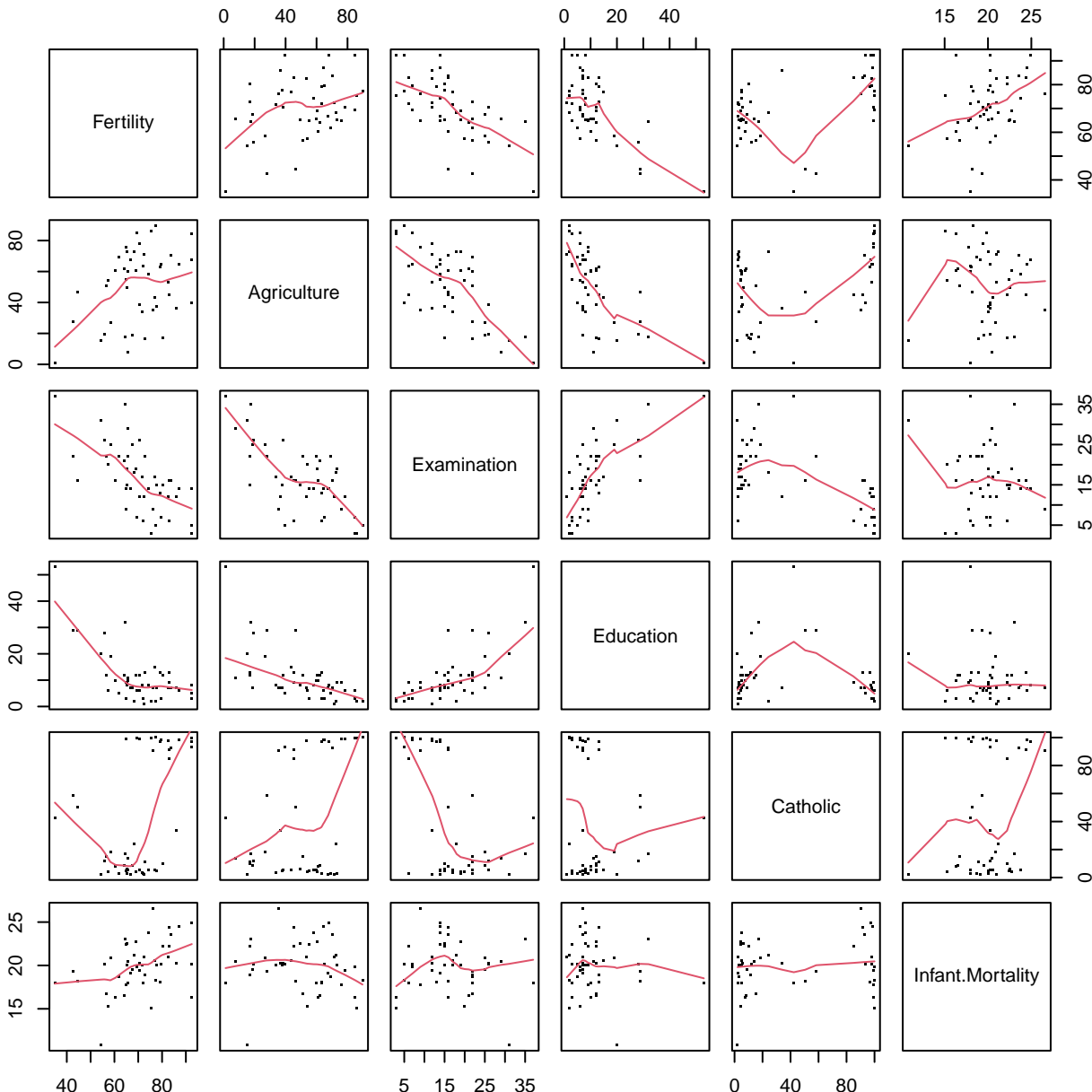
help("pairs")



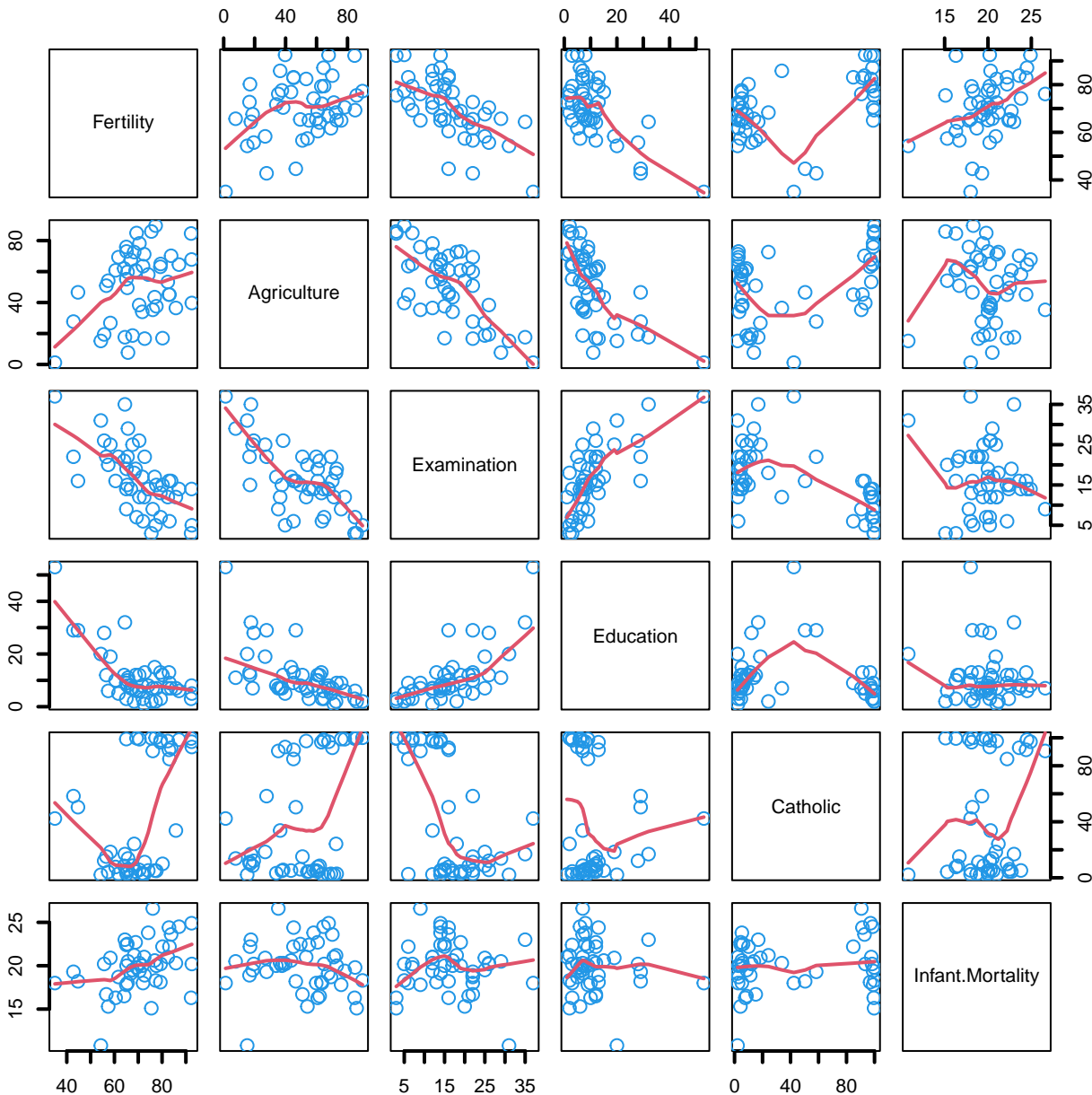


Lengths and Widths in [log]



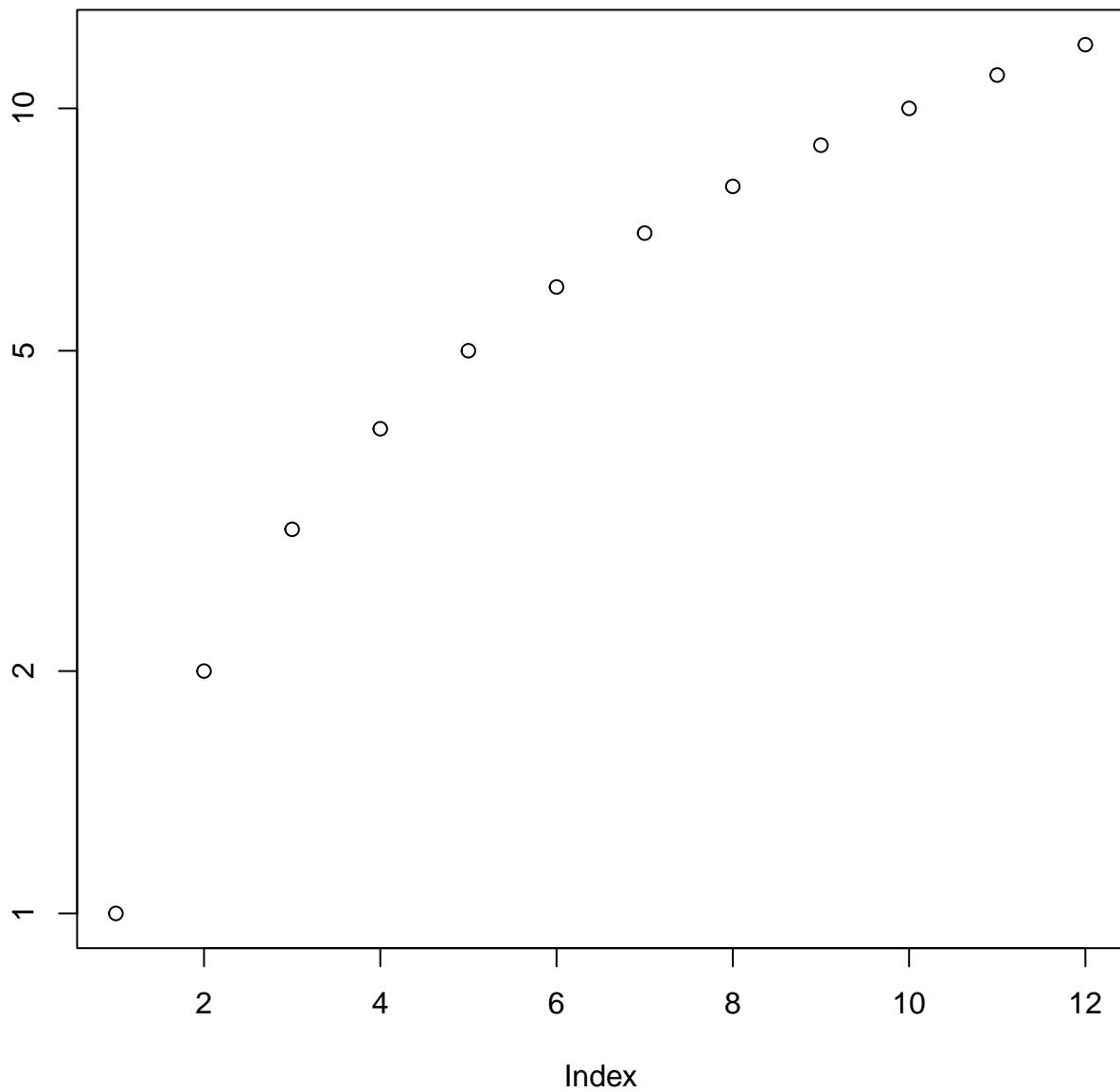


help("panel.smooth")

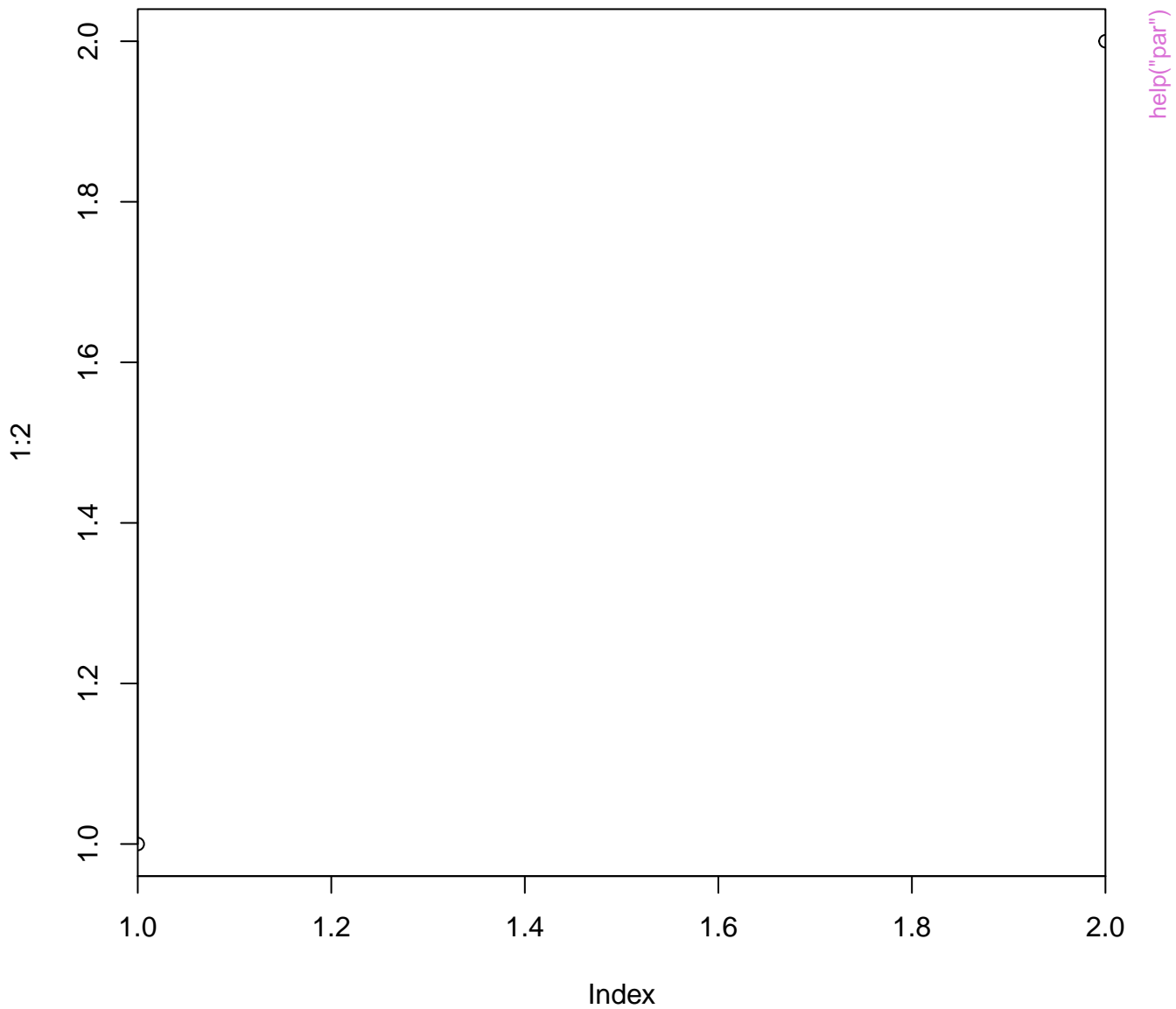


help("panel.smooth")

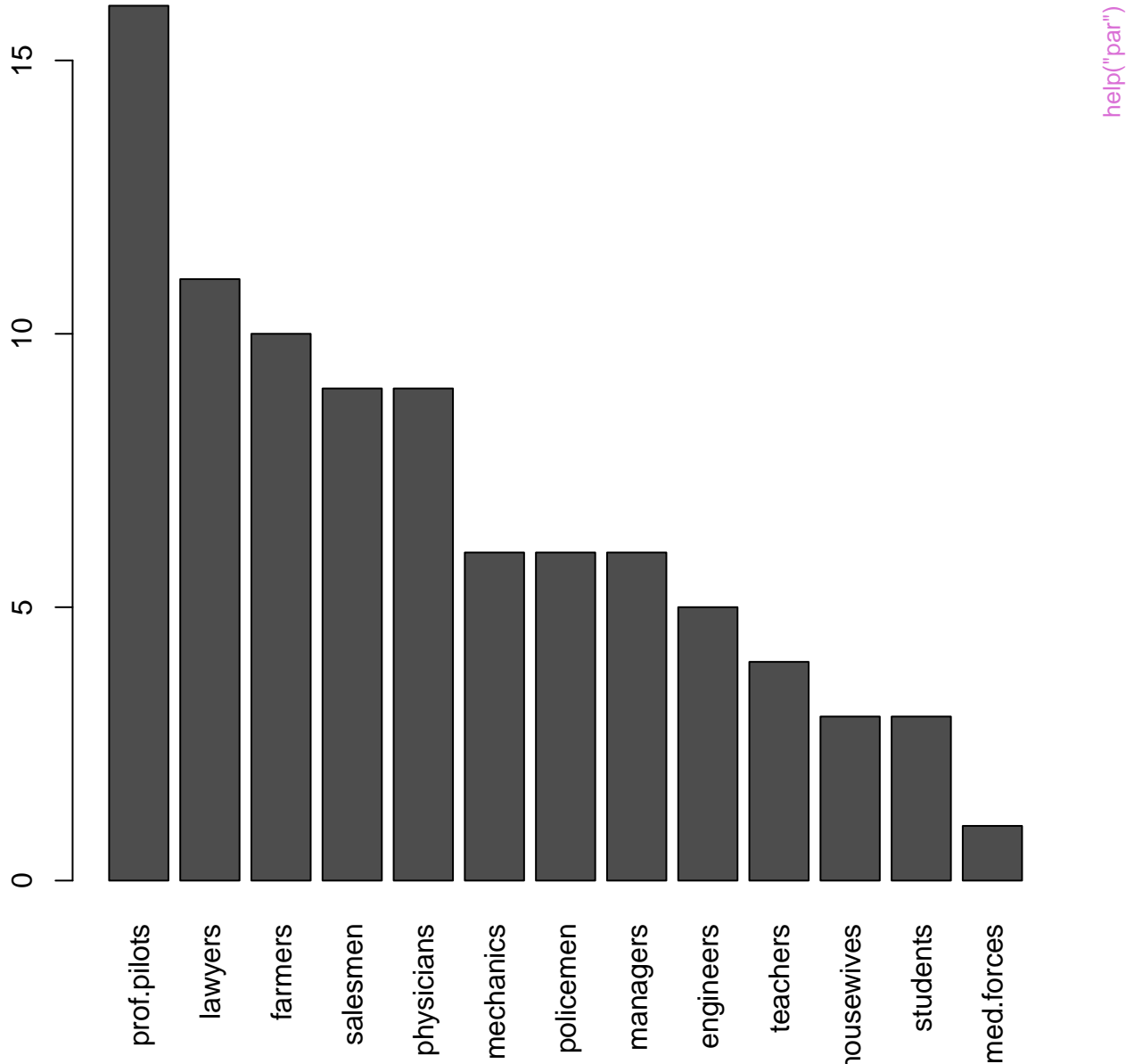
1:12



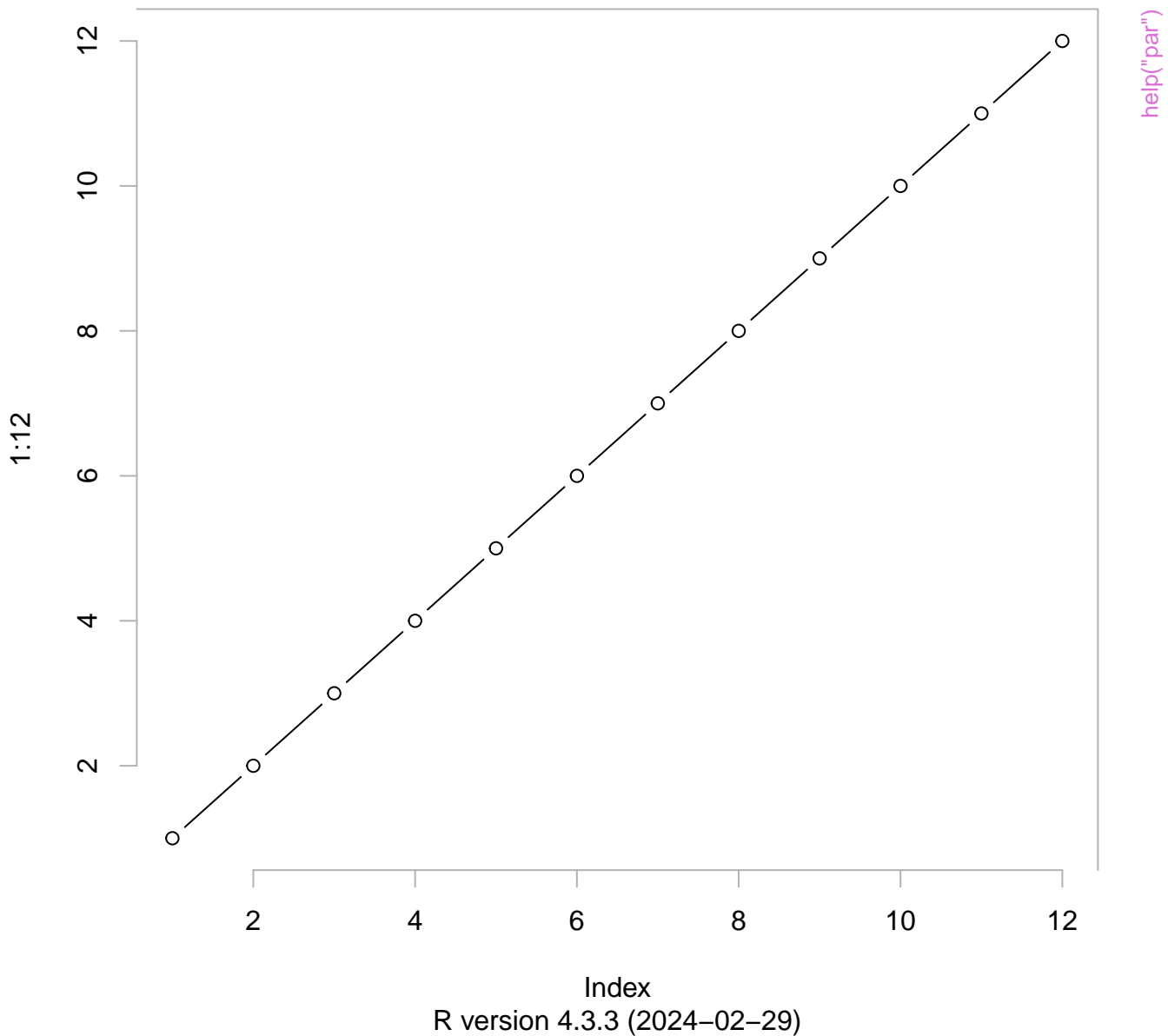
help("par")

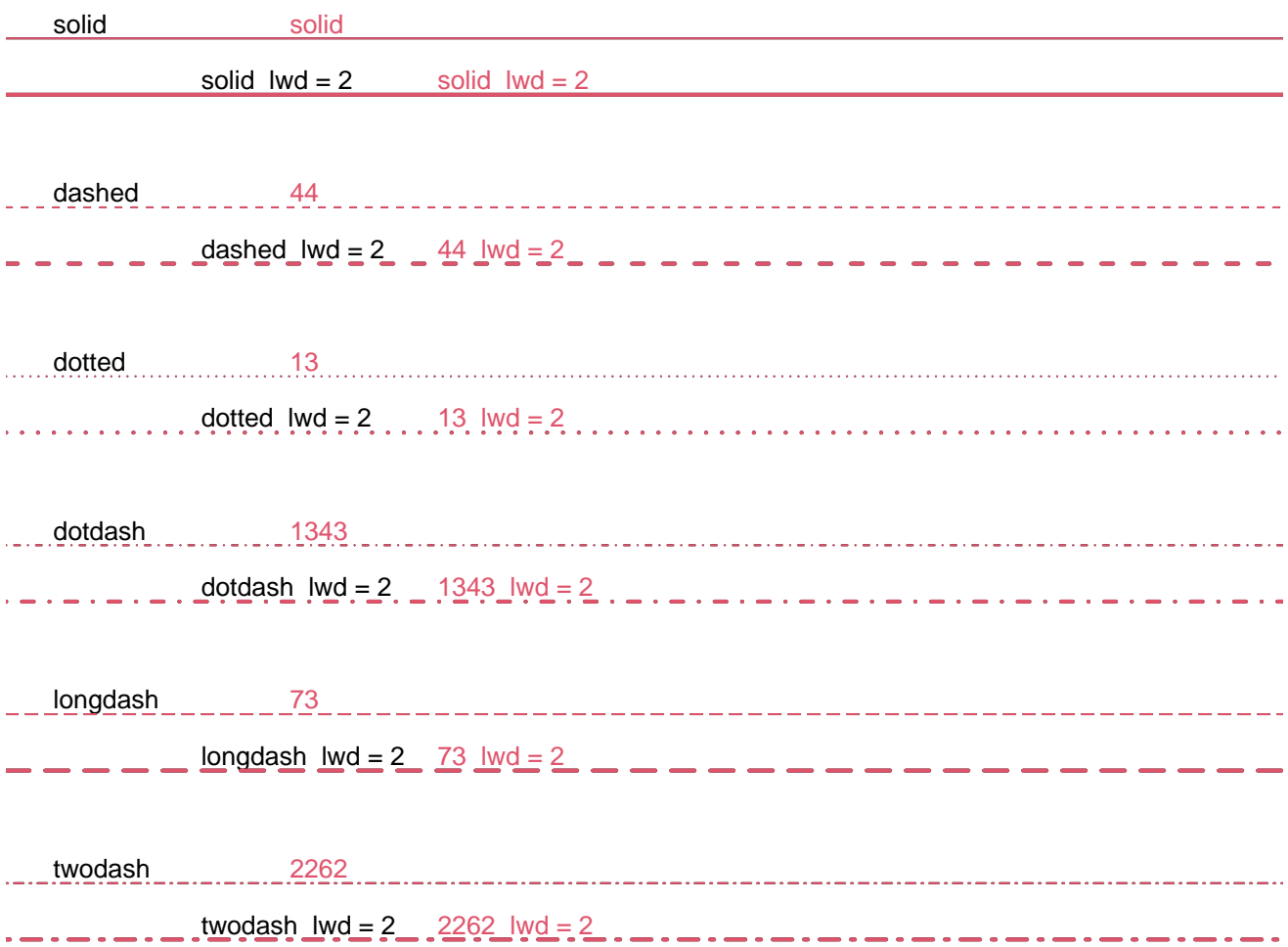


help("par")



'fg' : axes, ticks and box in gray





11

11 lwd = 2

22

22 lwd = 2

33

33 lwd = 2

44

44 lwd = 2

12

12 lwd = 2

13

13 lwd = 2

14

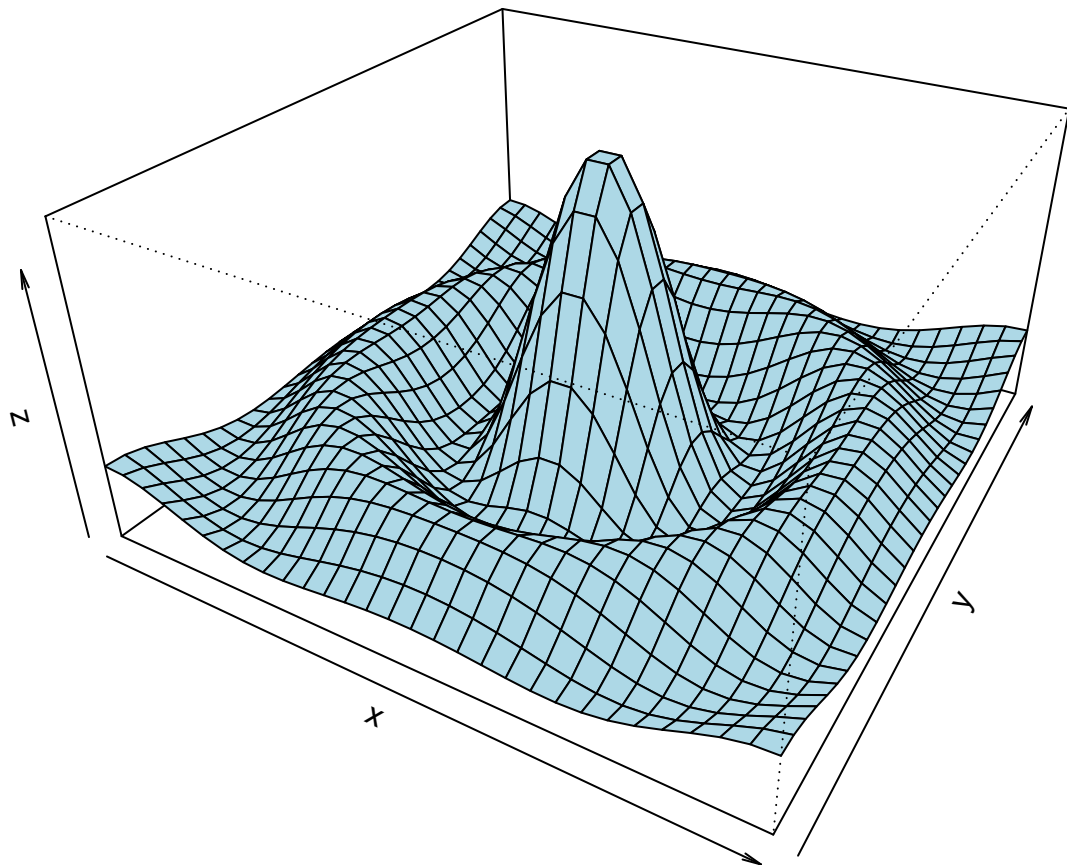
14 lwd = 2

21

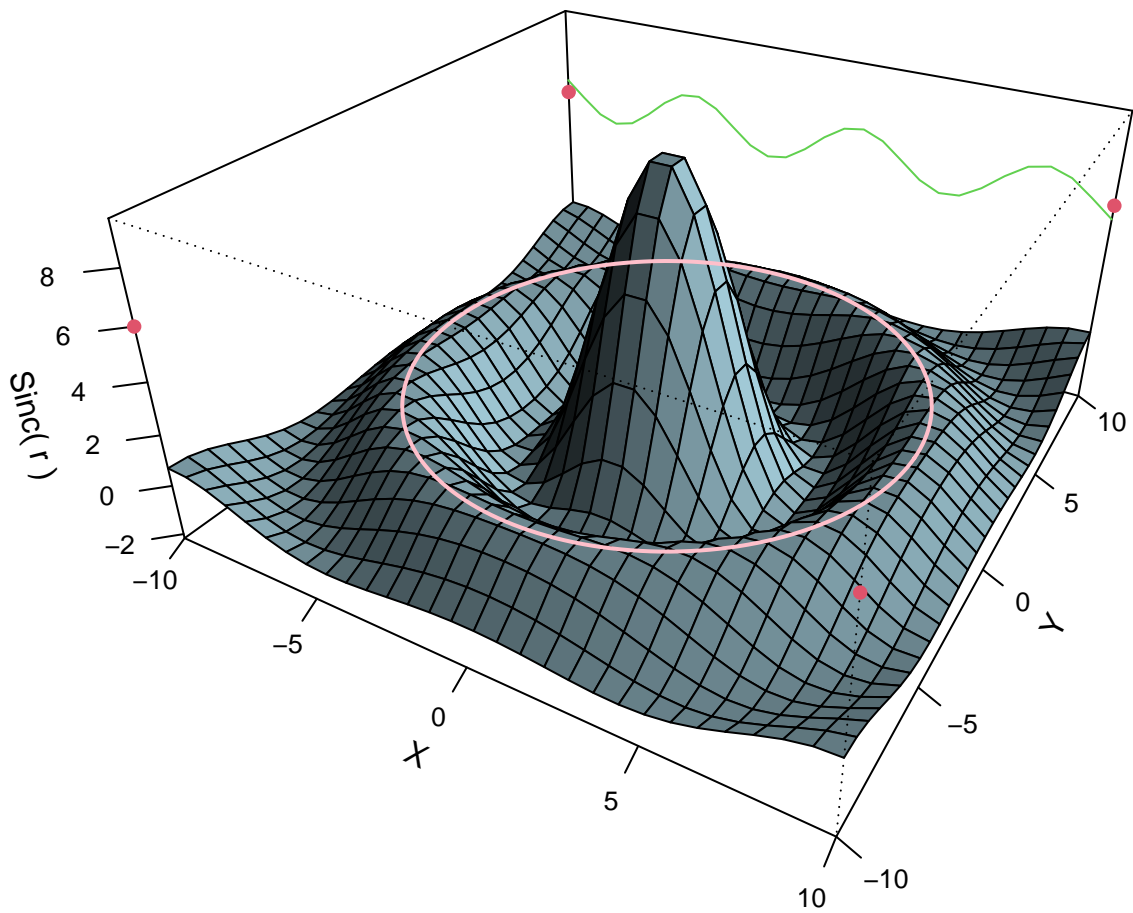
21 lwd = 2

31

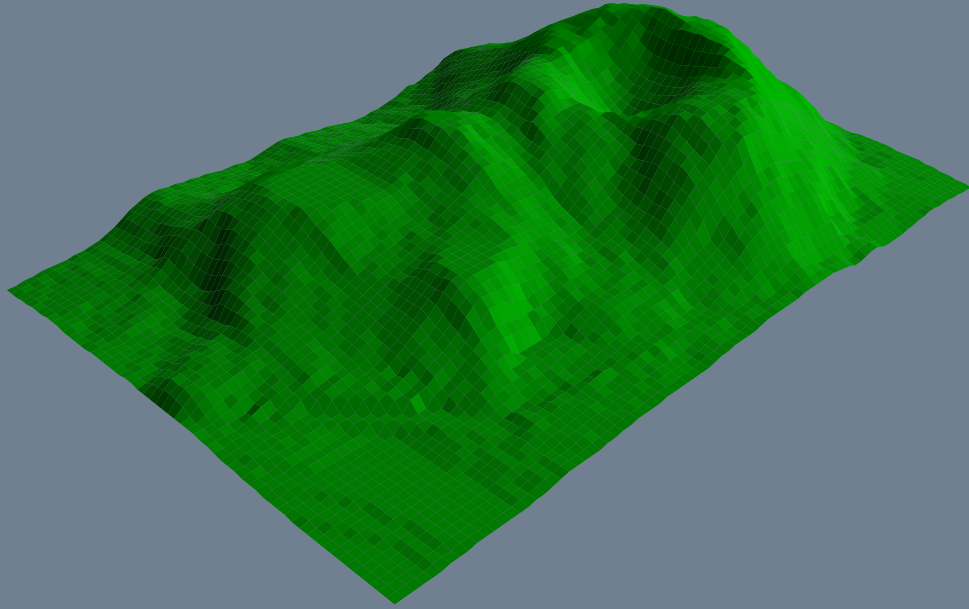
31 lwd = 2



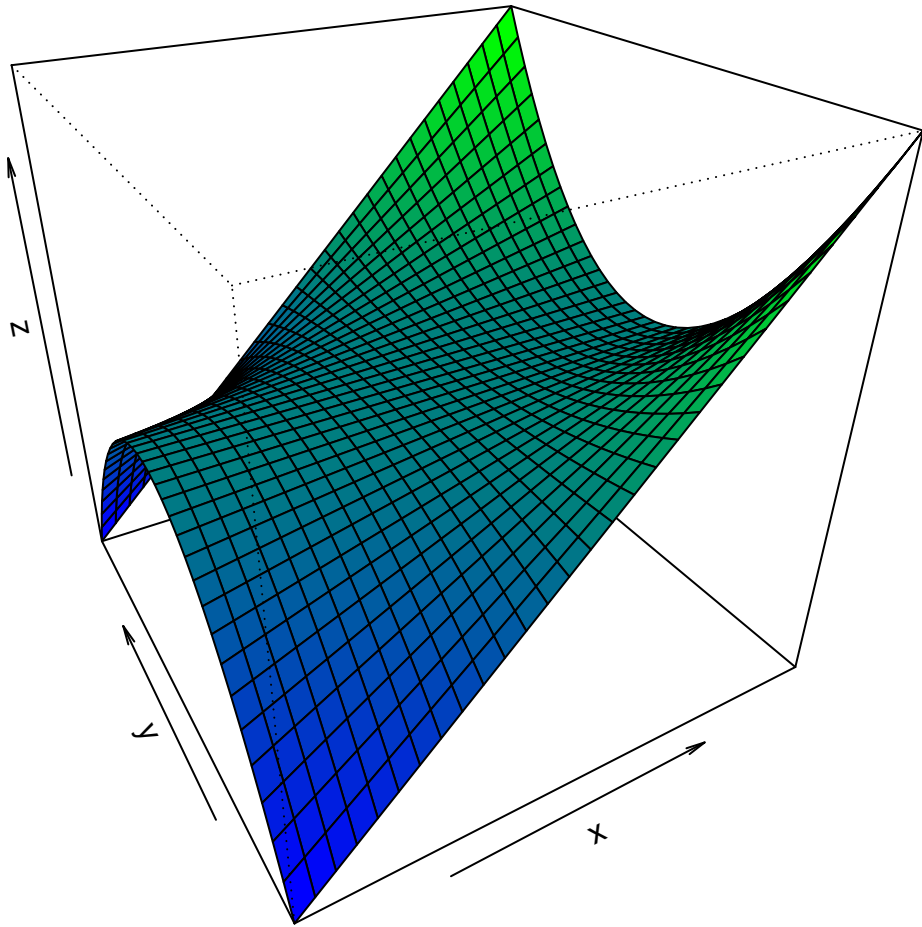
`help("persp")`



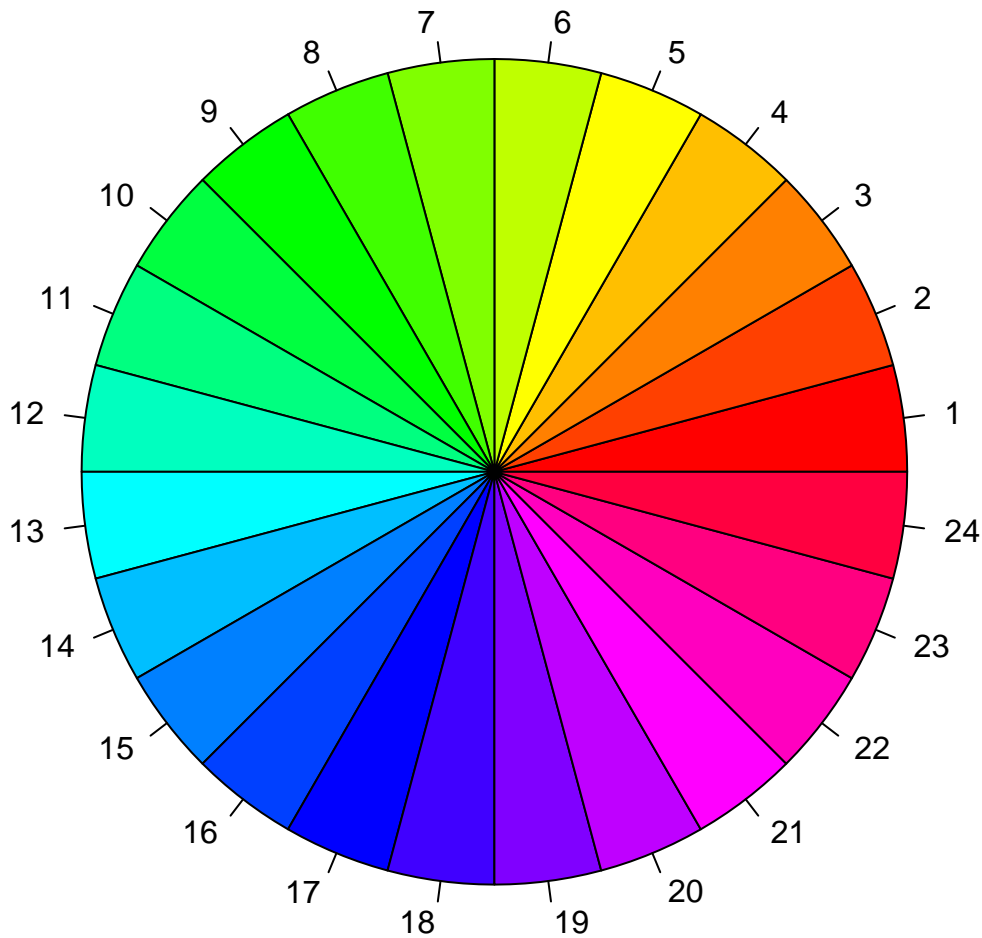
help("persp")



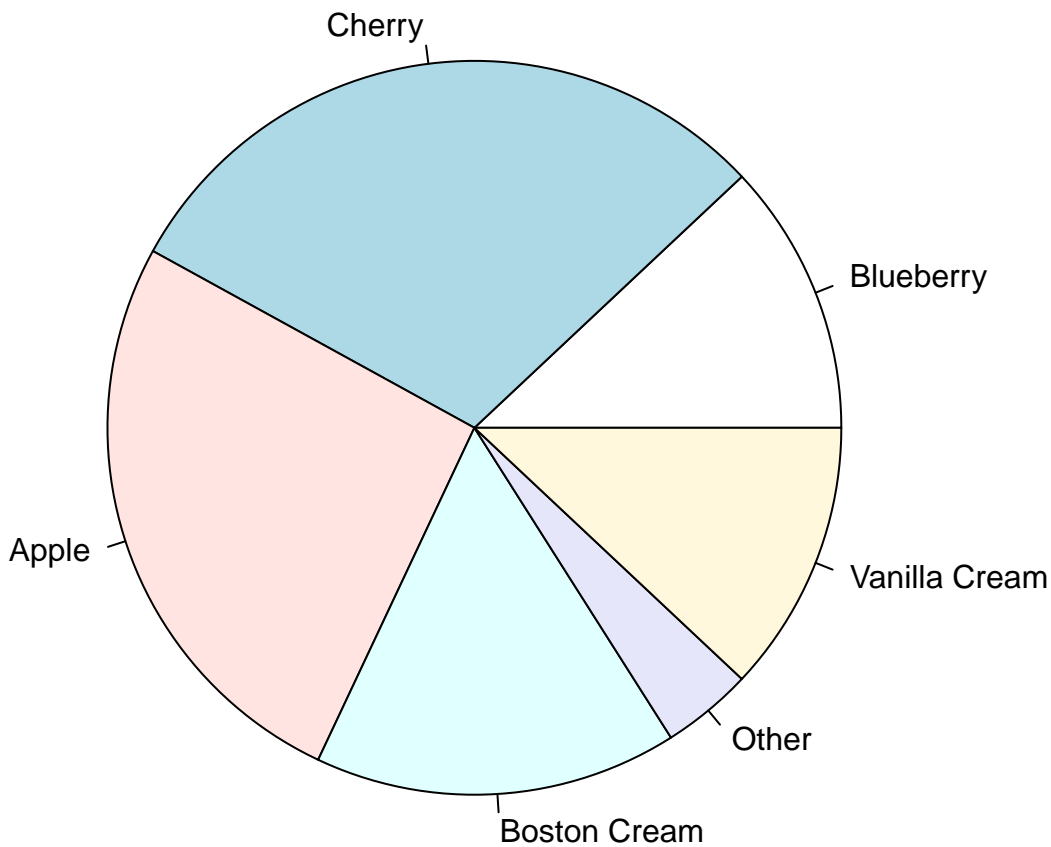
help("persp")

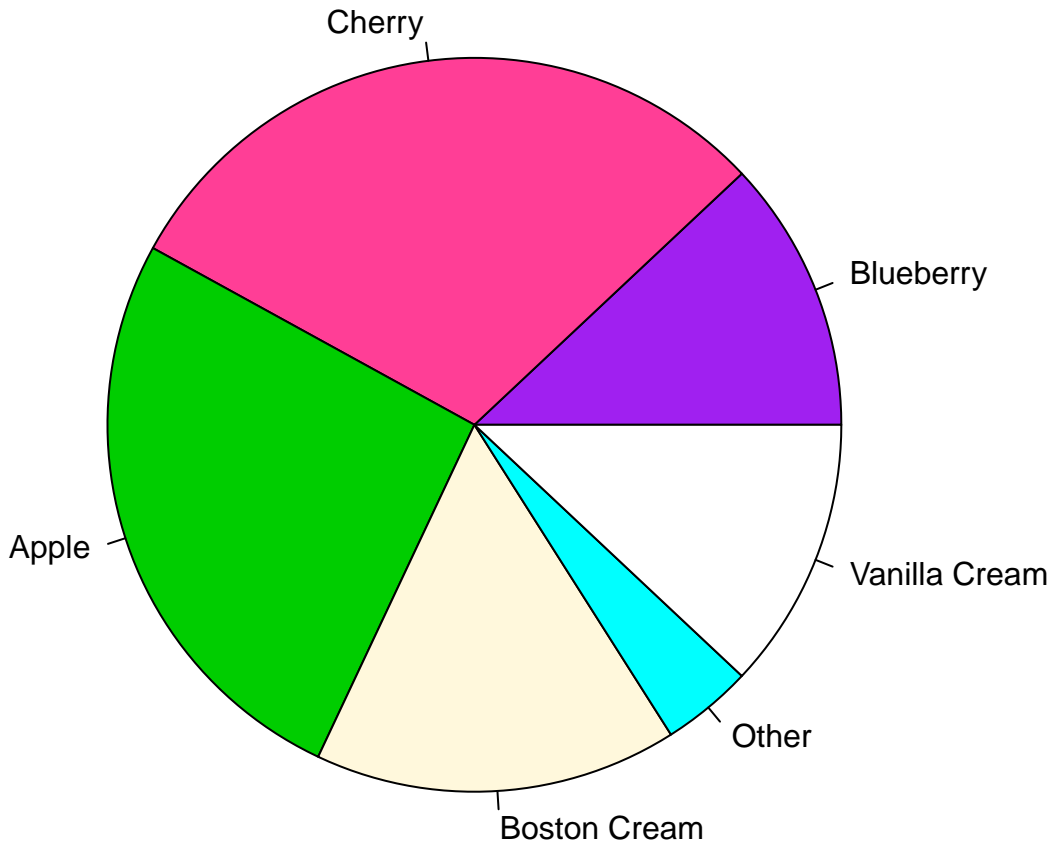


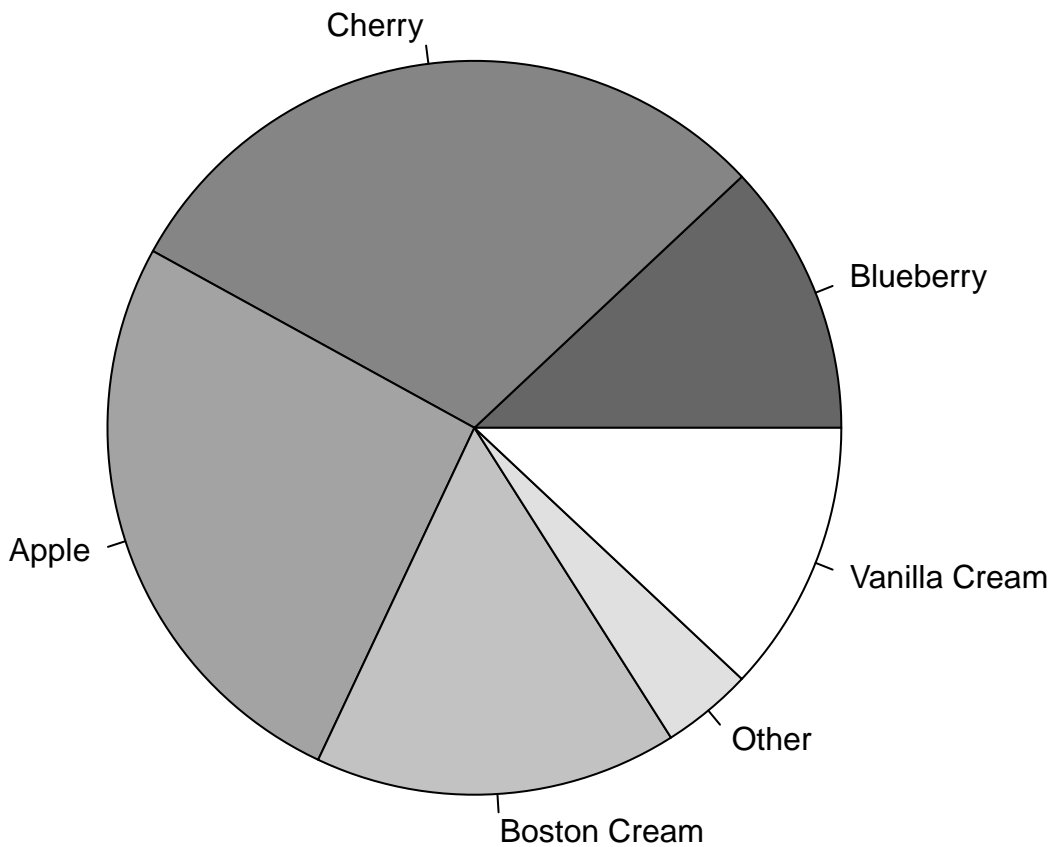
`help("persp")`

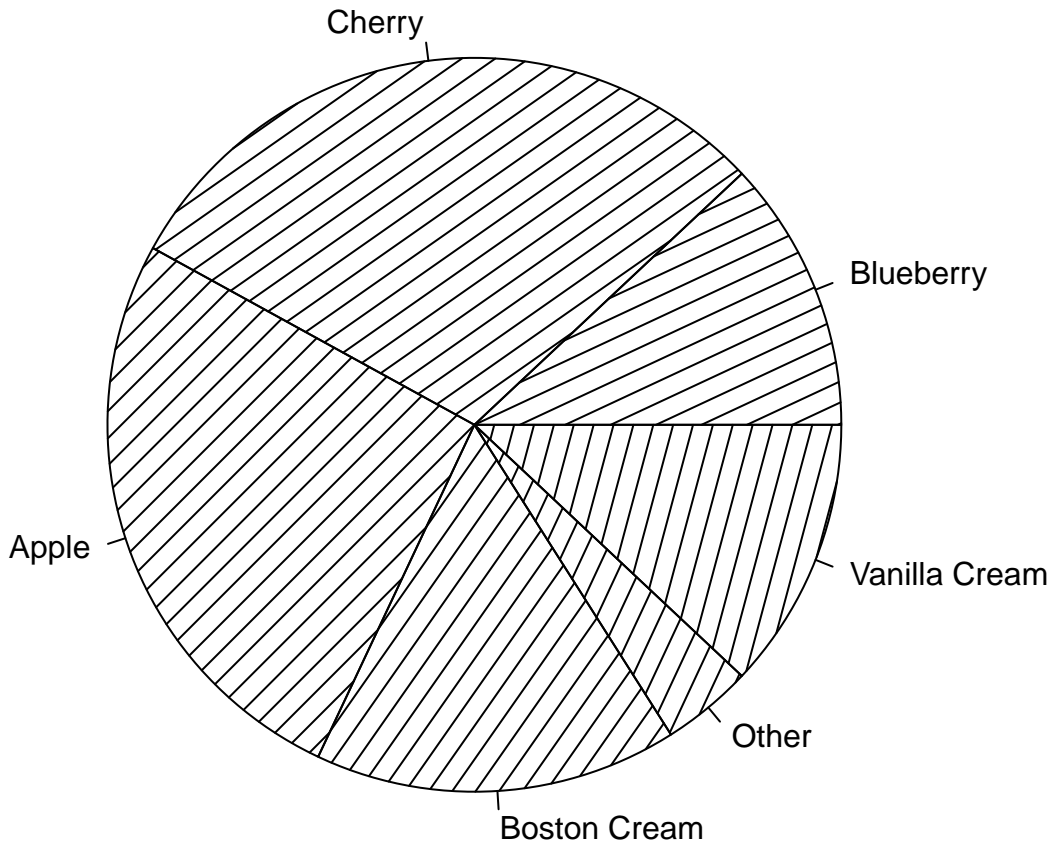


help("pie")



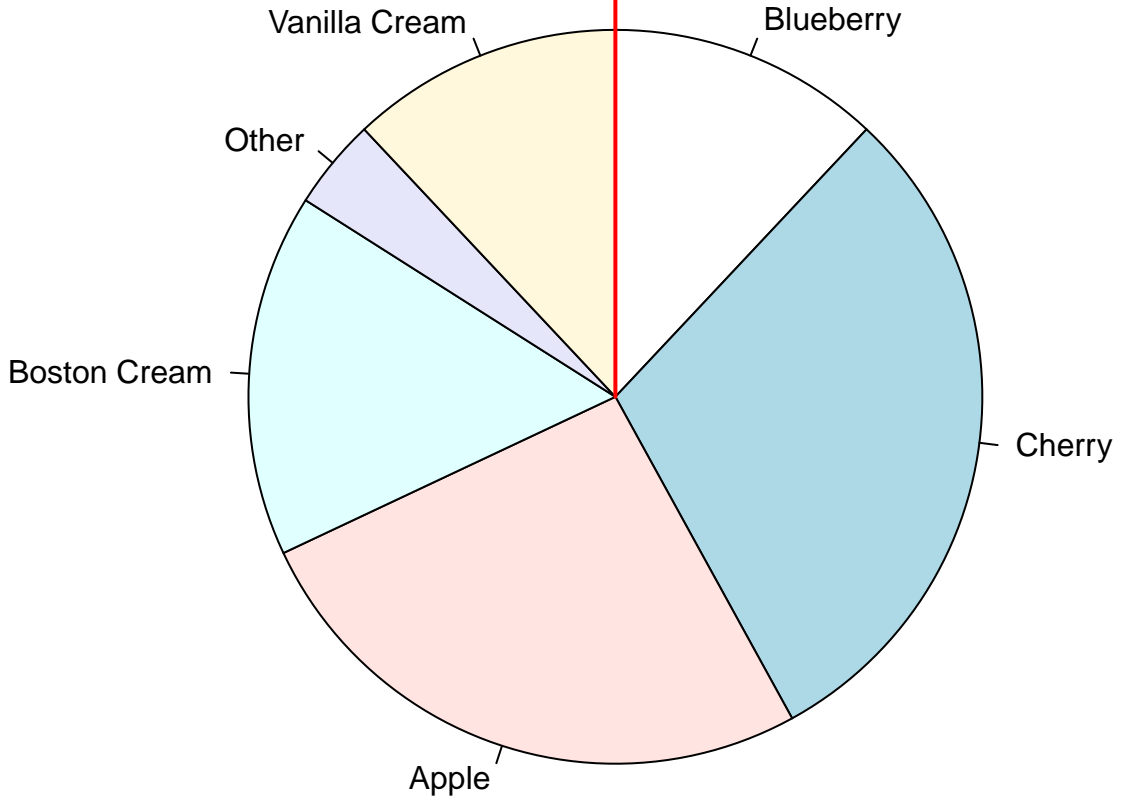






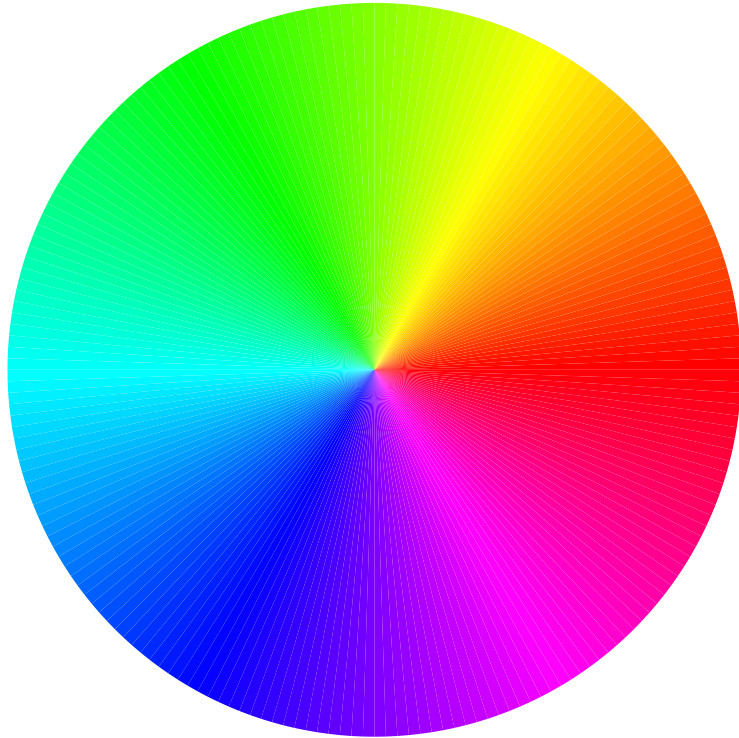
pie(*, clockwise = TRUE)

init.angle = 90

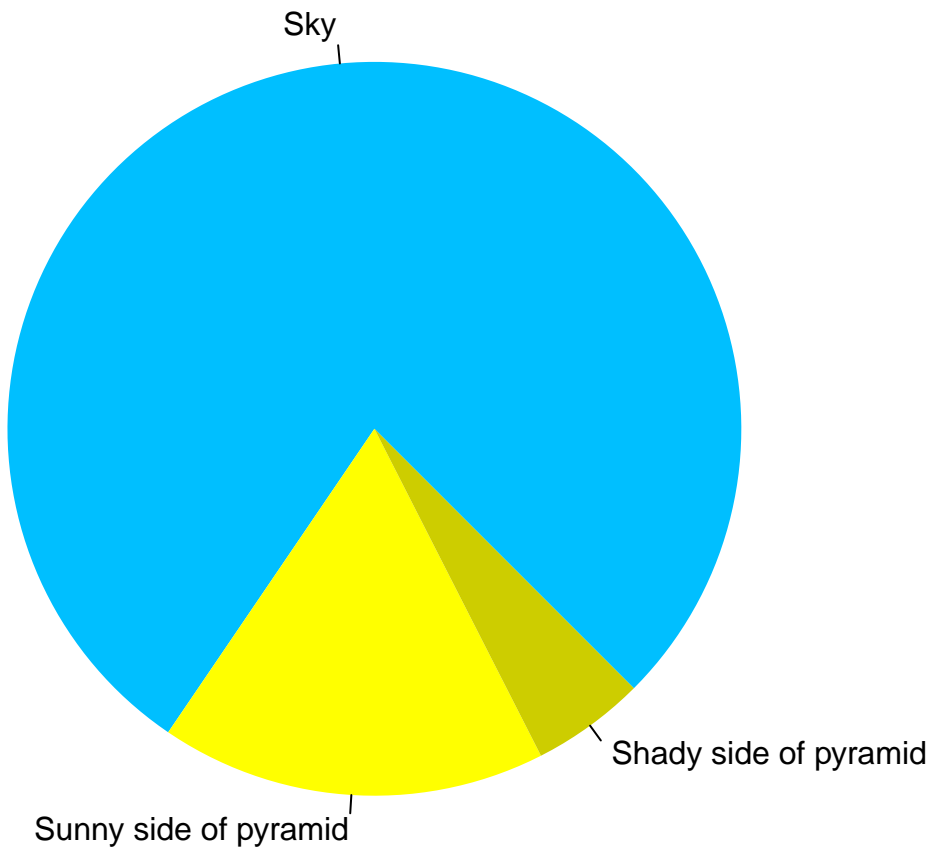


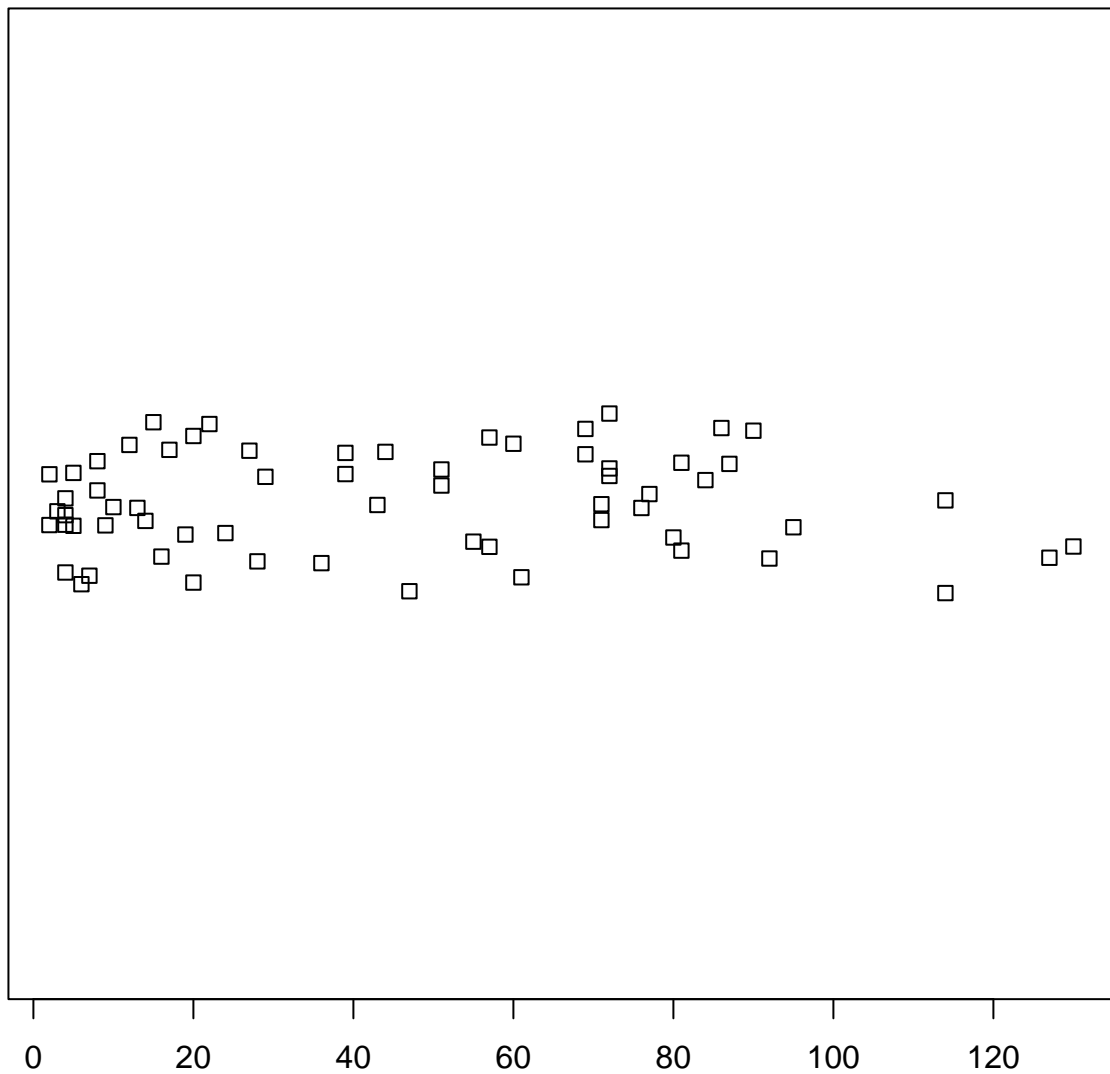
help("pie")

```
pie(*, labels="", col=rainbow(n), border=NA,..
```

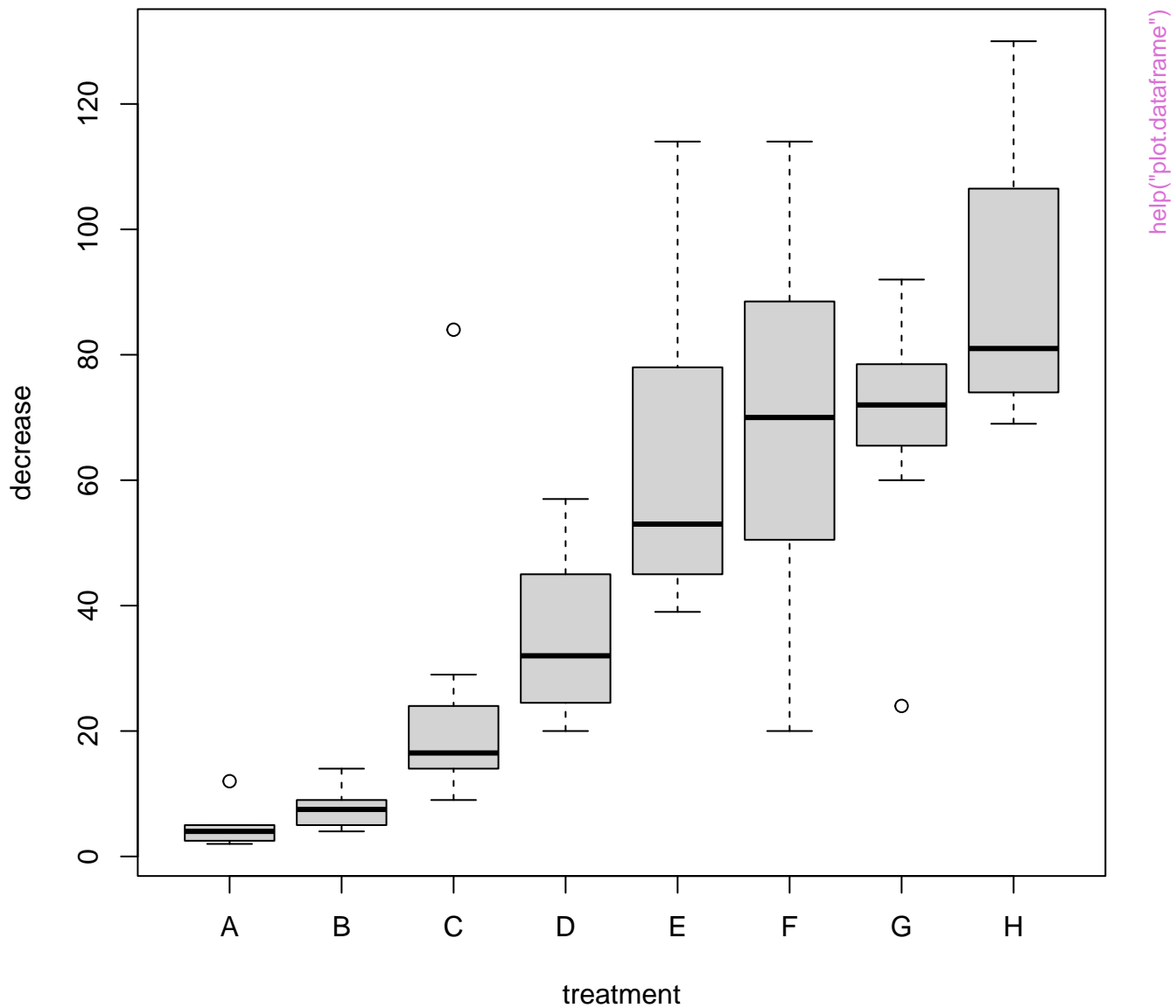


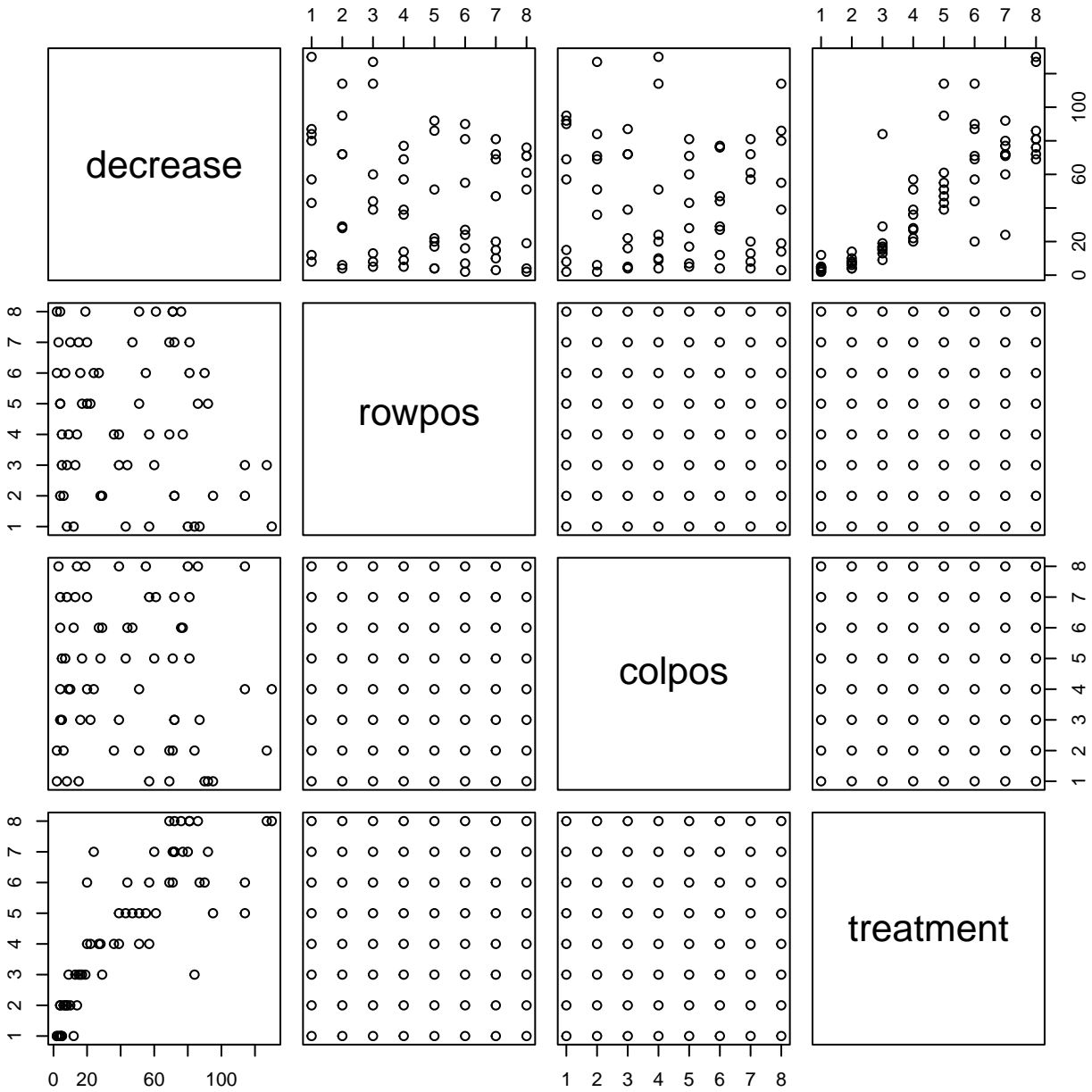
help("pie")



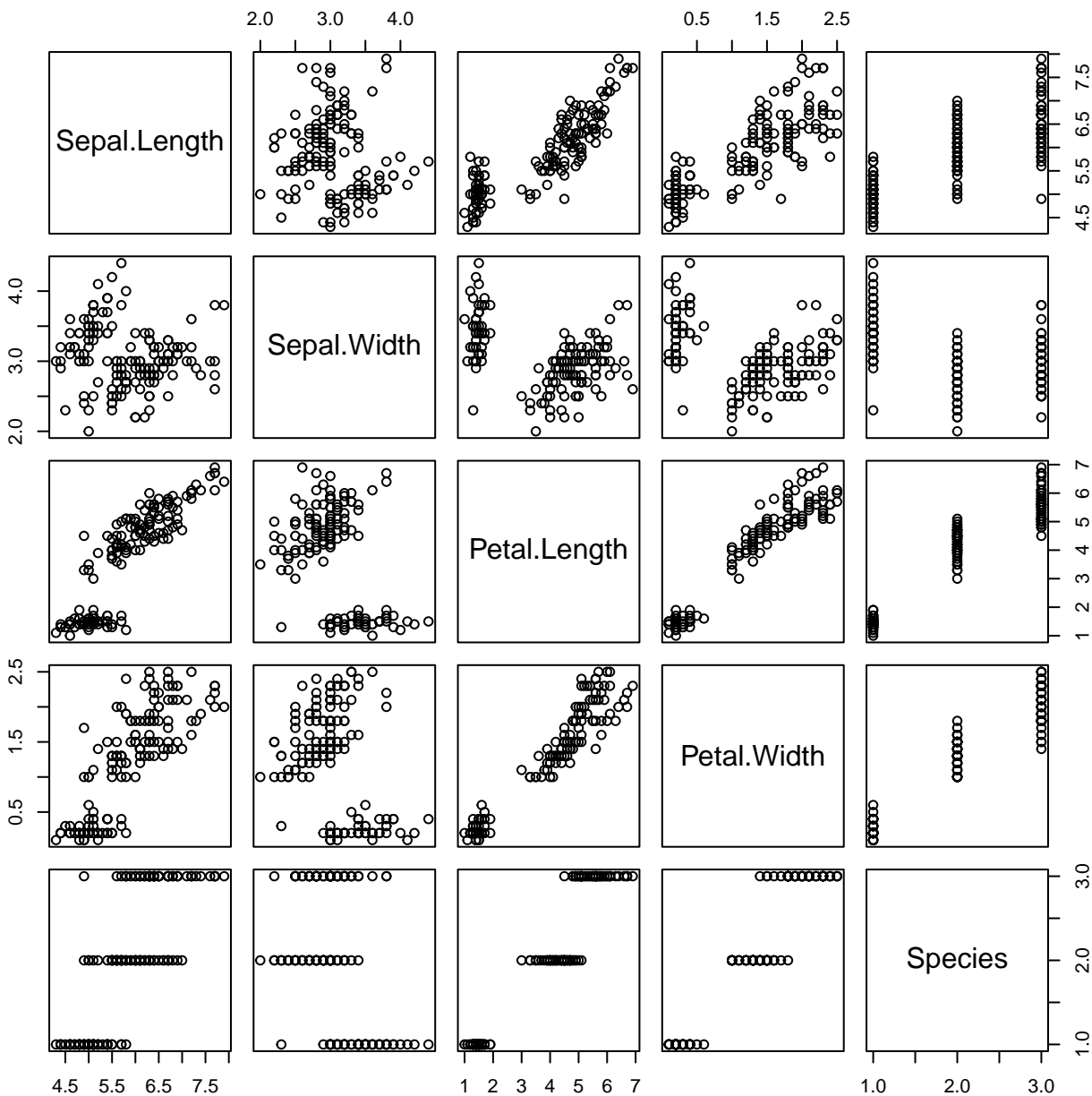


help("plot.dataframe")

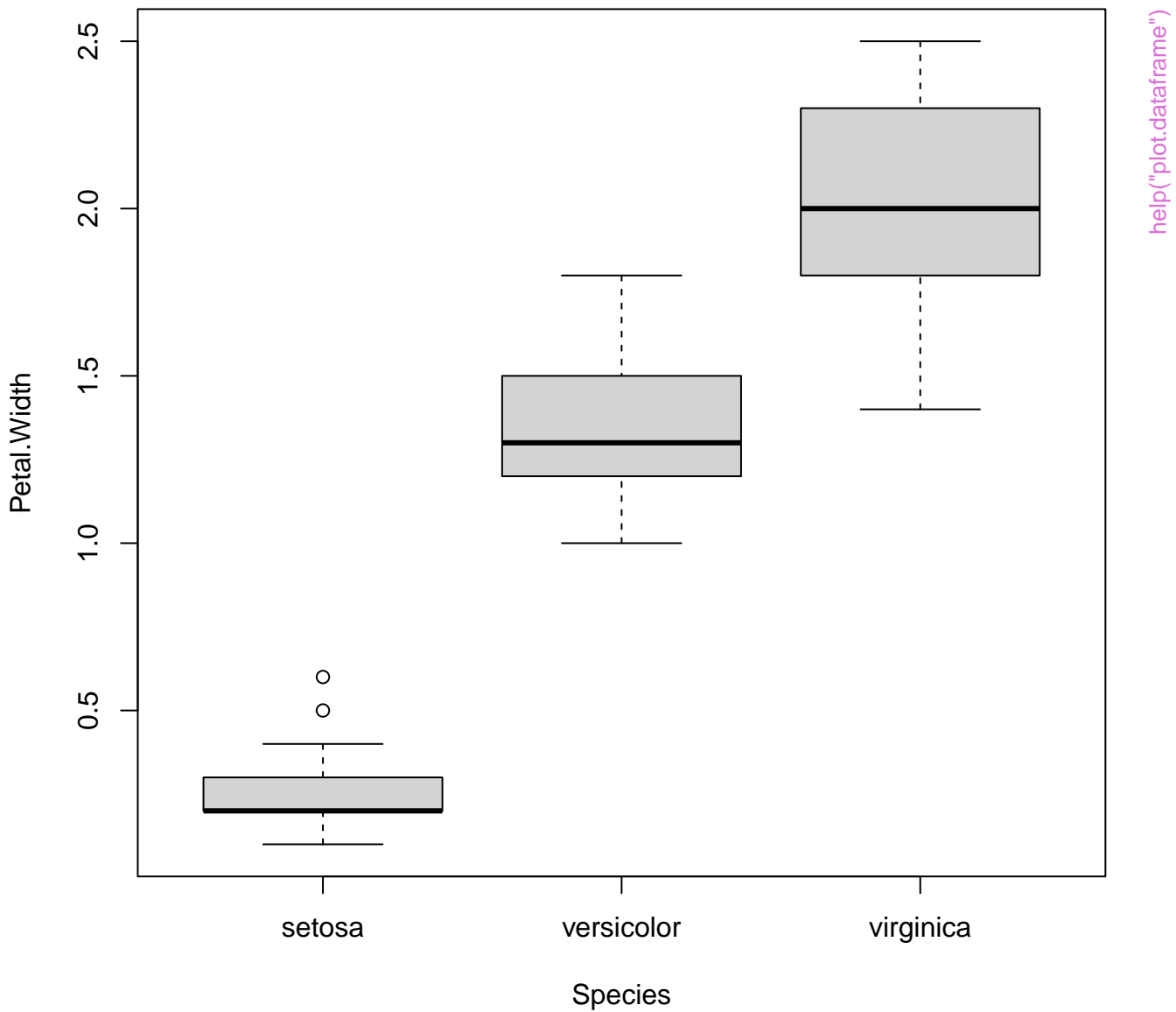


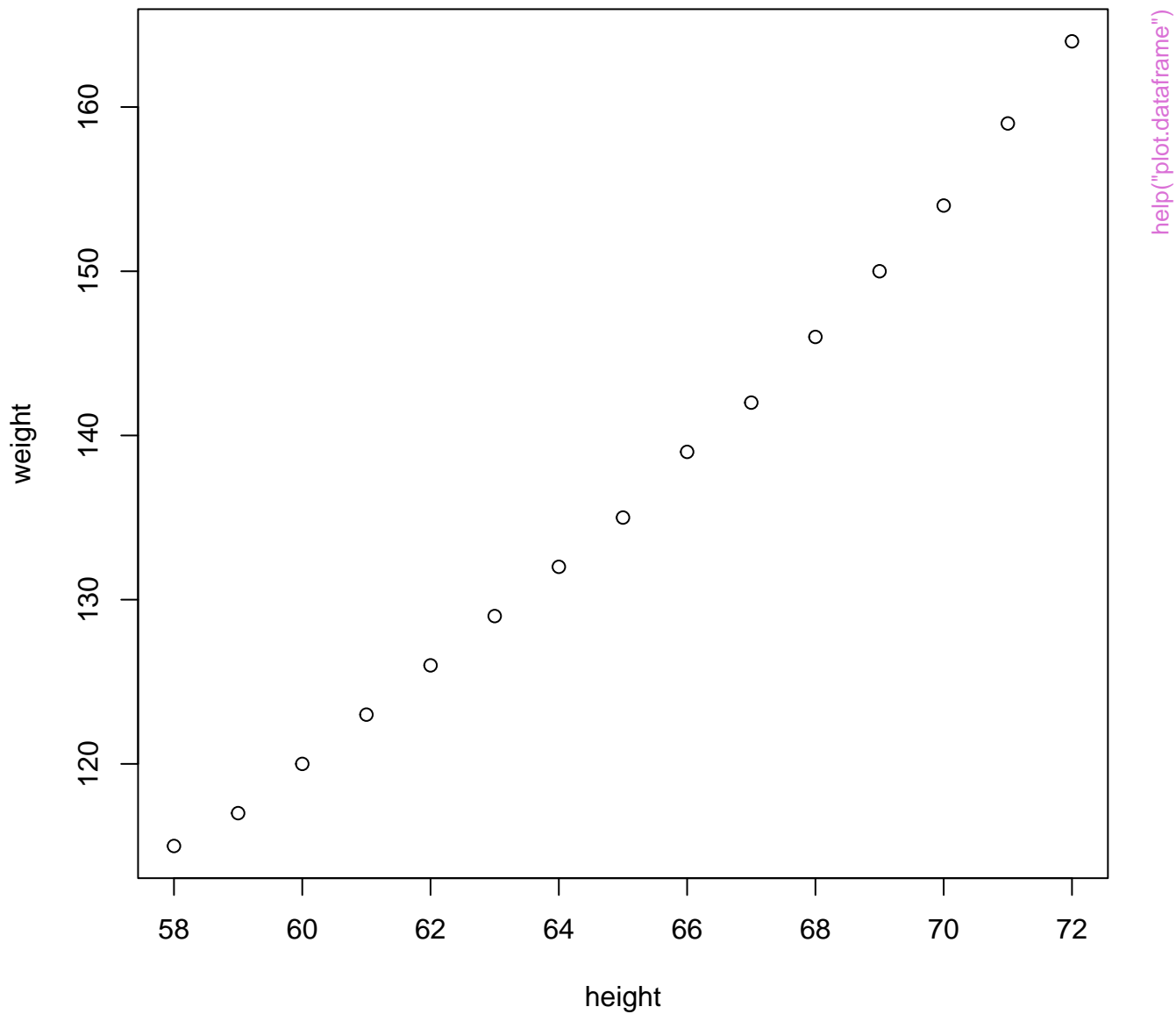


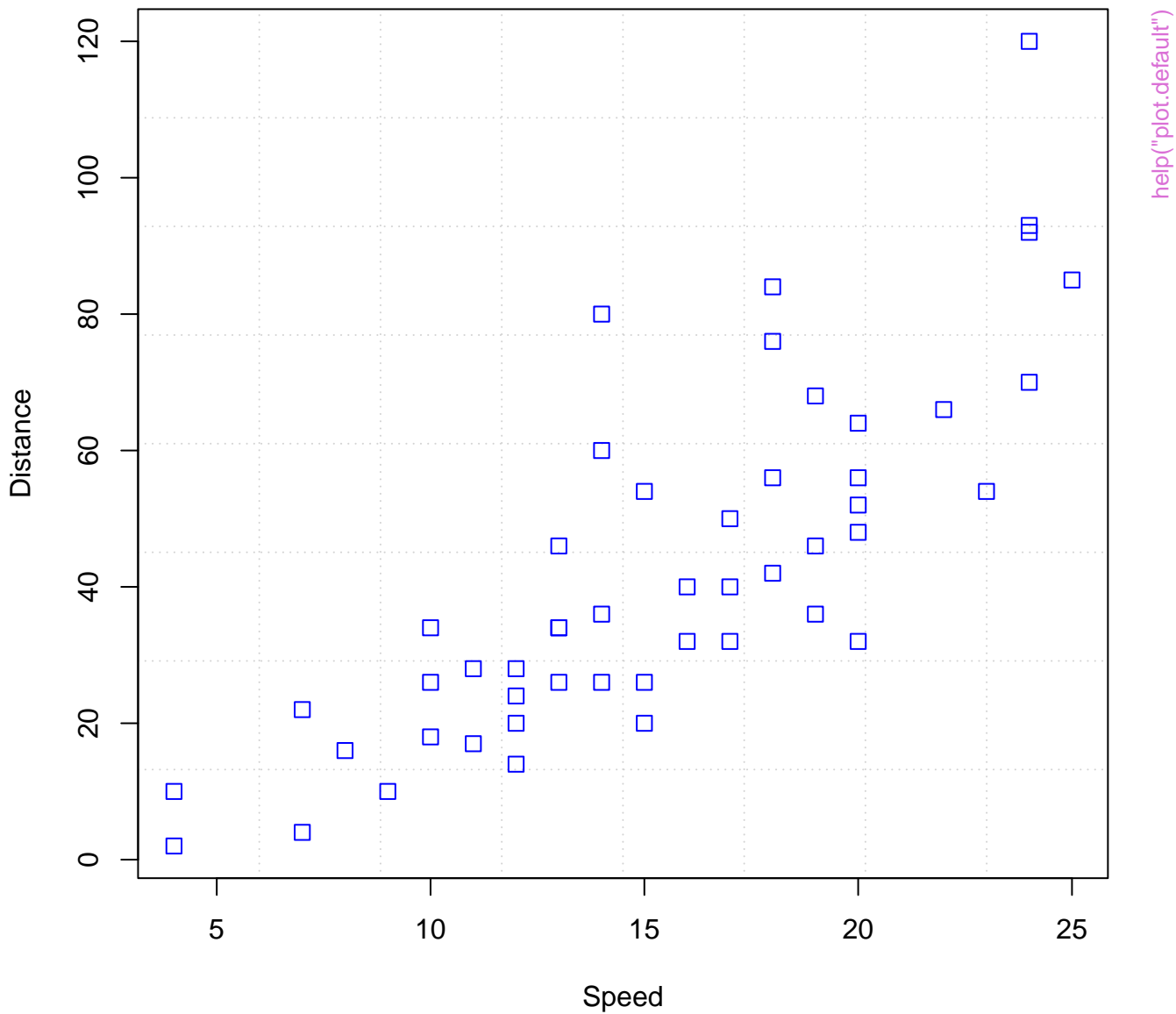
help("plot.dataframe")

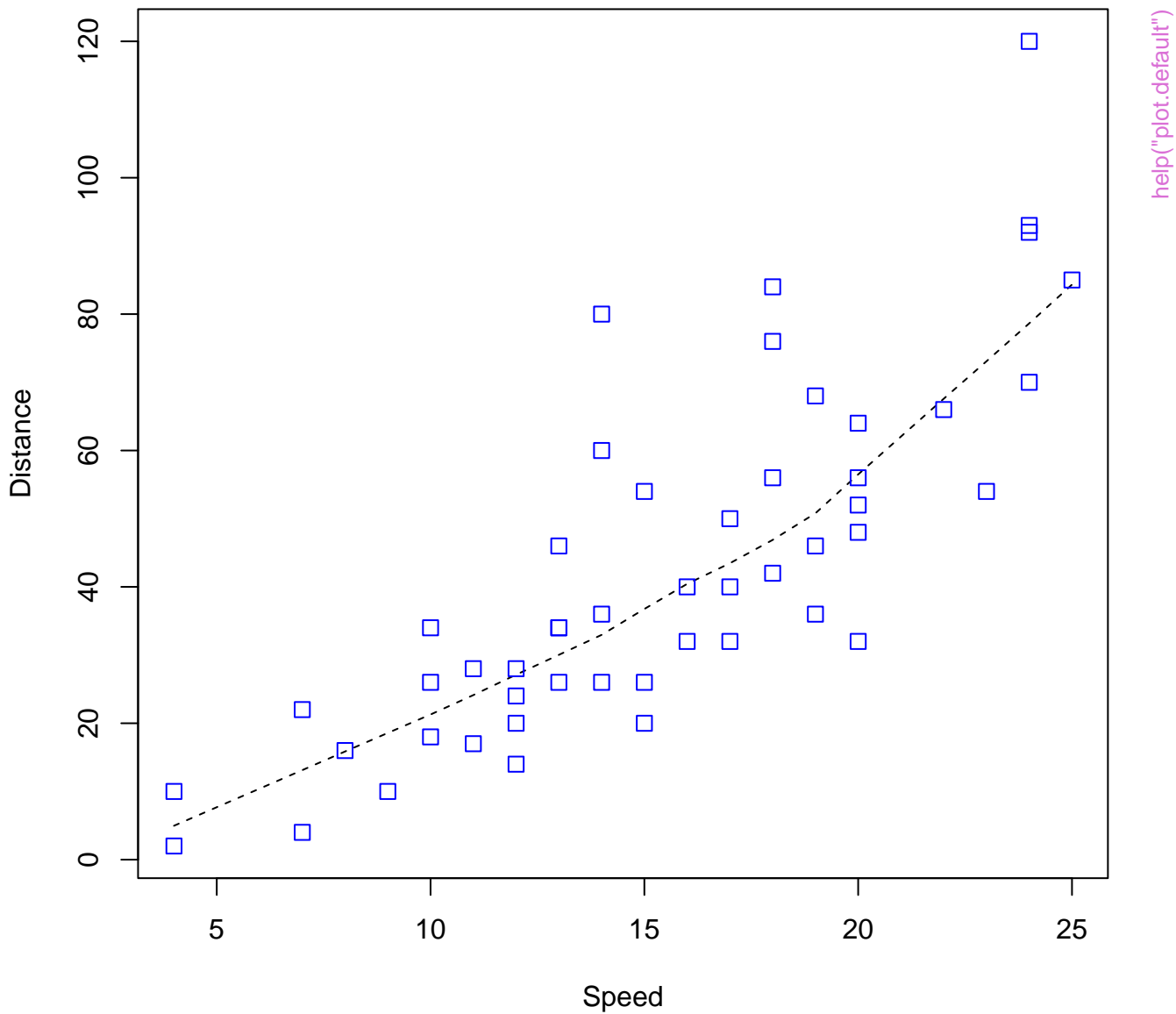


`help("plot.dataframe")`

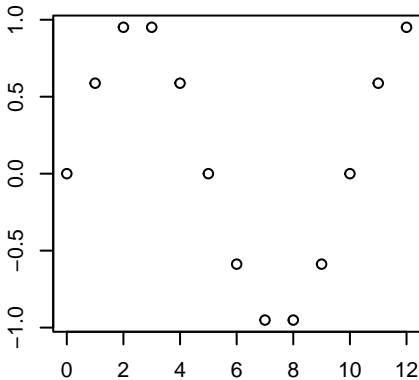




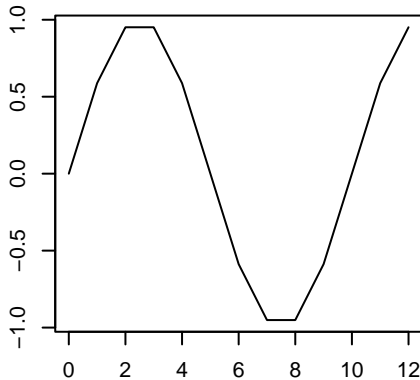




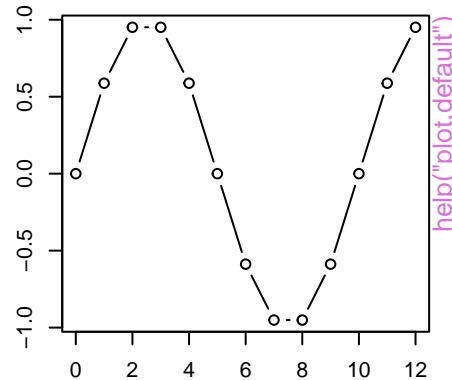
plot(*, type = "p")



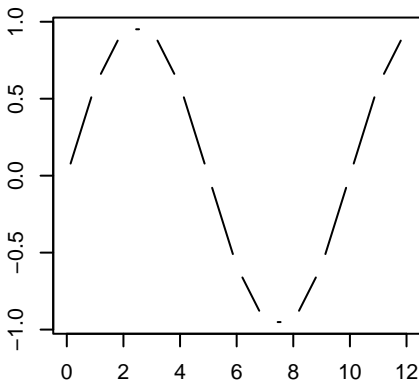
plot(*, type = "l")



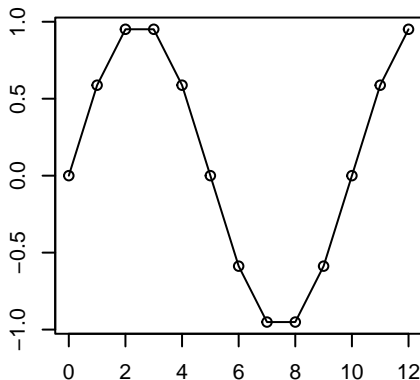
plot(*, type = "b")



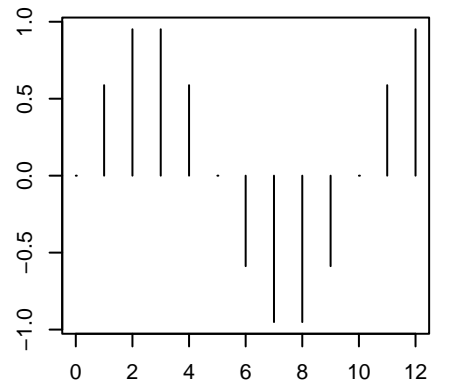
plot(*, type = "c")



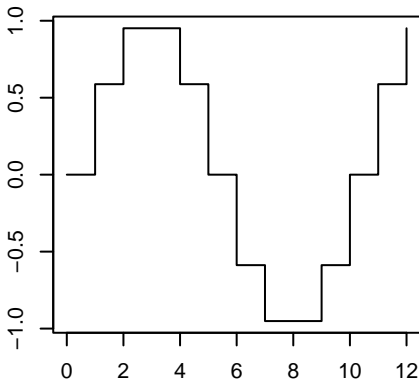
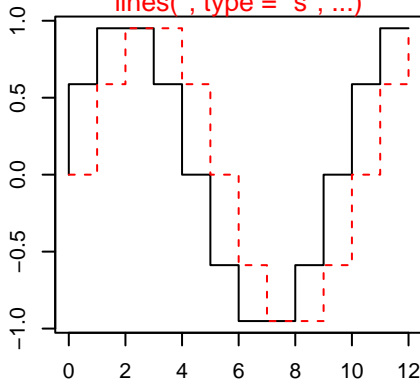
plot(*, type = "o")



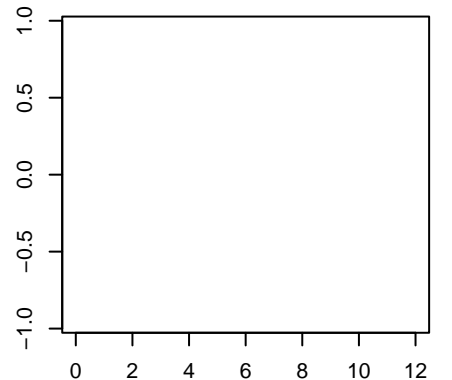
plot(*, type = "h")



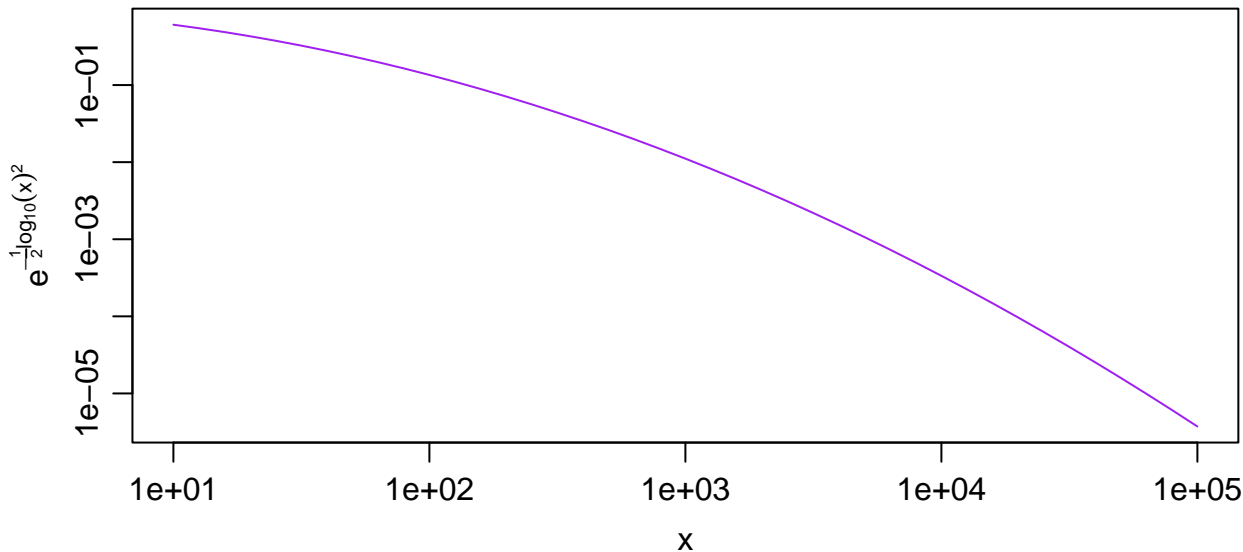
plot(*, type = "s")

plot(*, type = "S")
lines(*, type = "s", ...)

plot(*, type = "n")

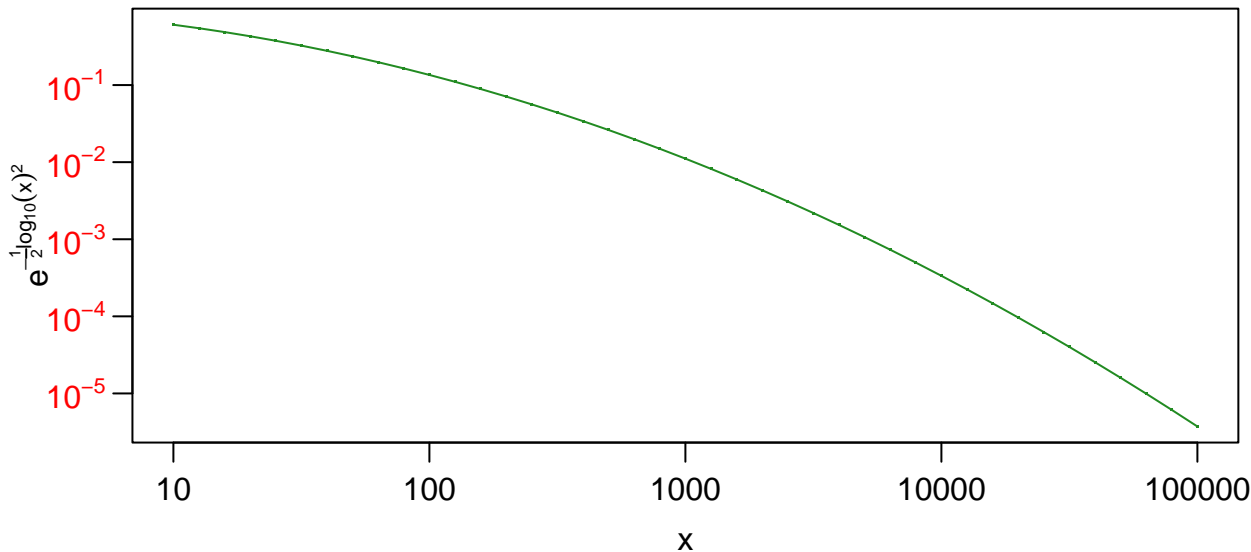


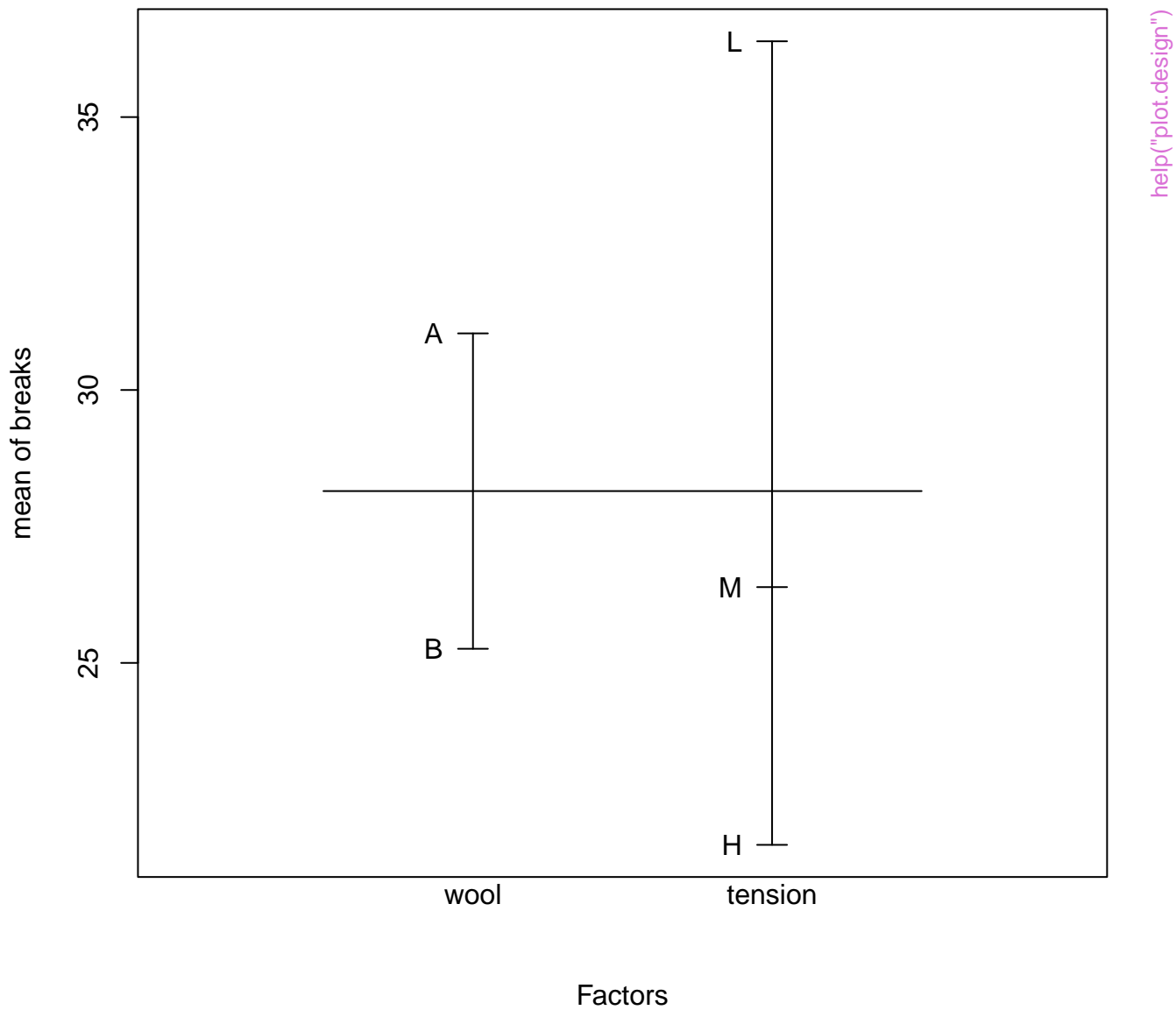
Log-Log plot

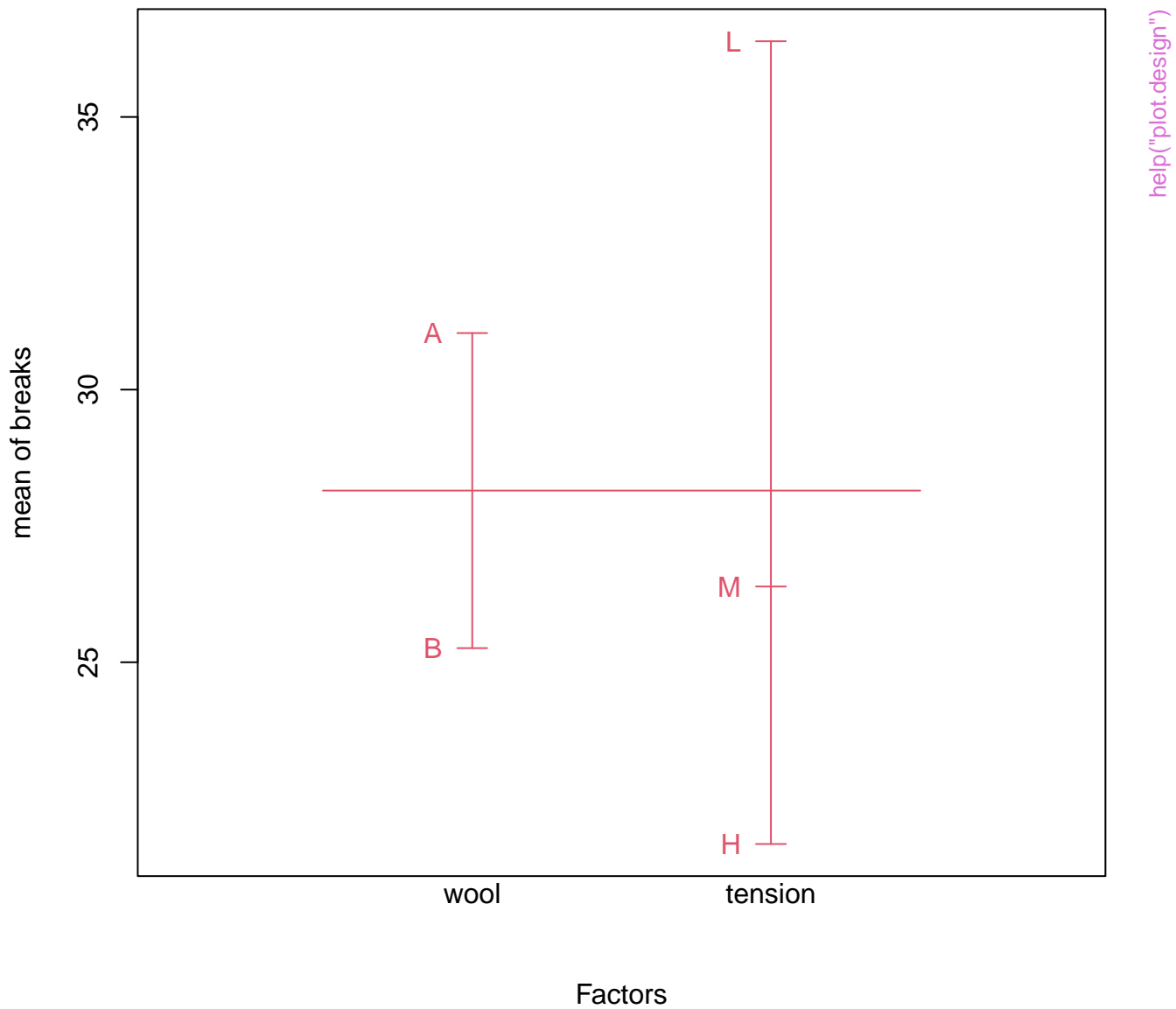


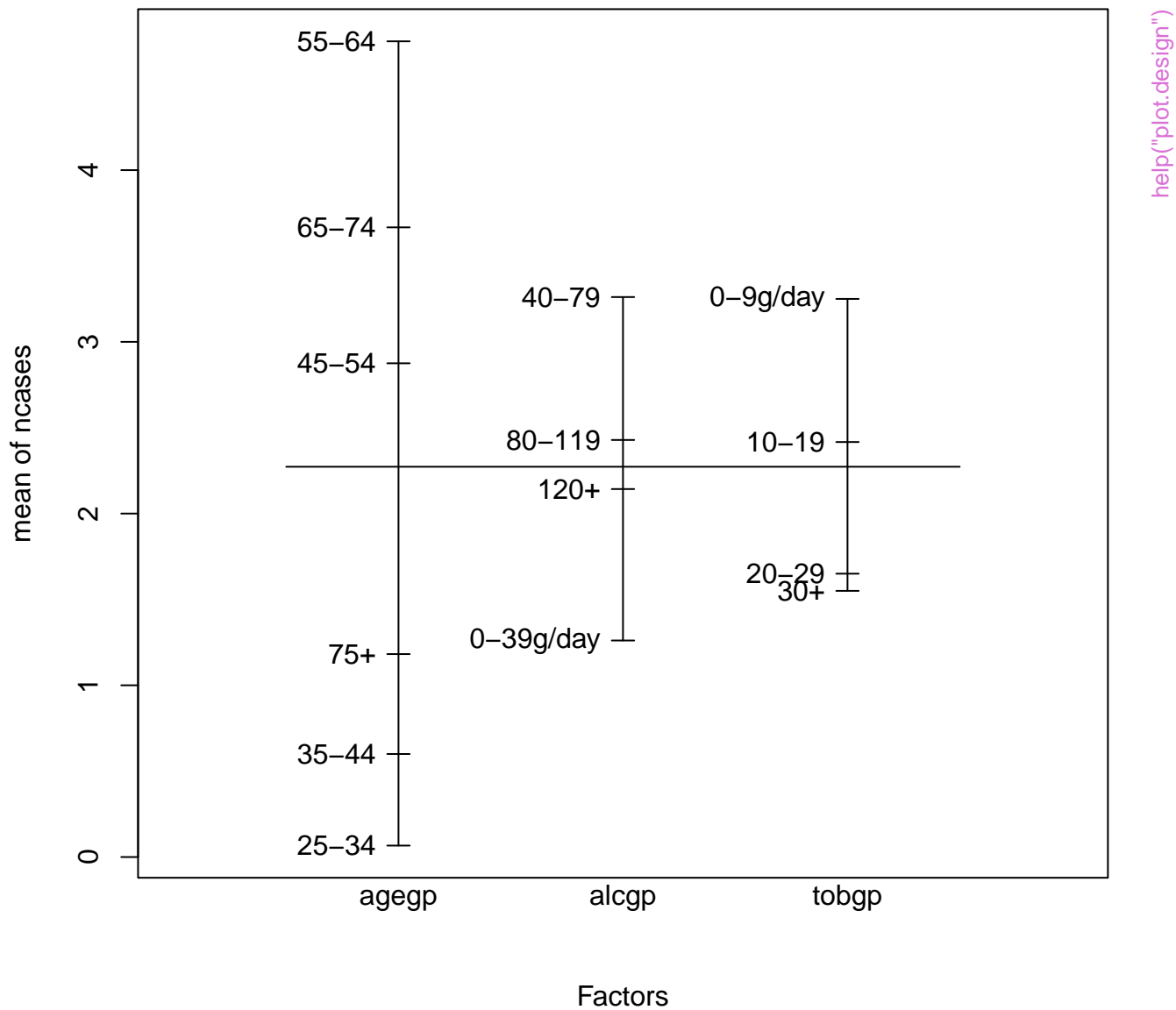
help("plot.default")

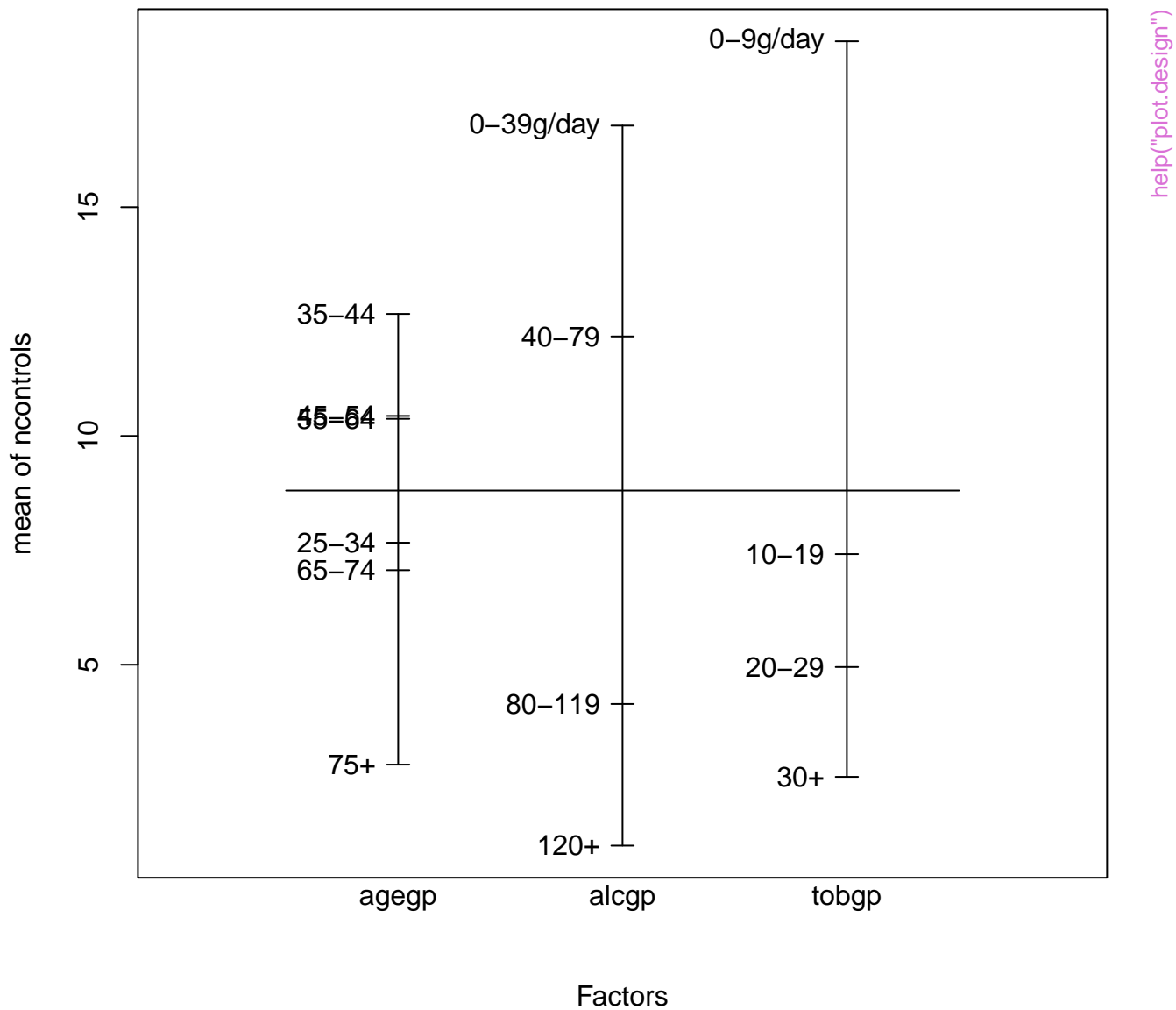
Log-Log plot with custom axes

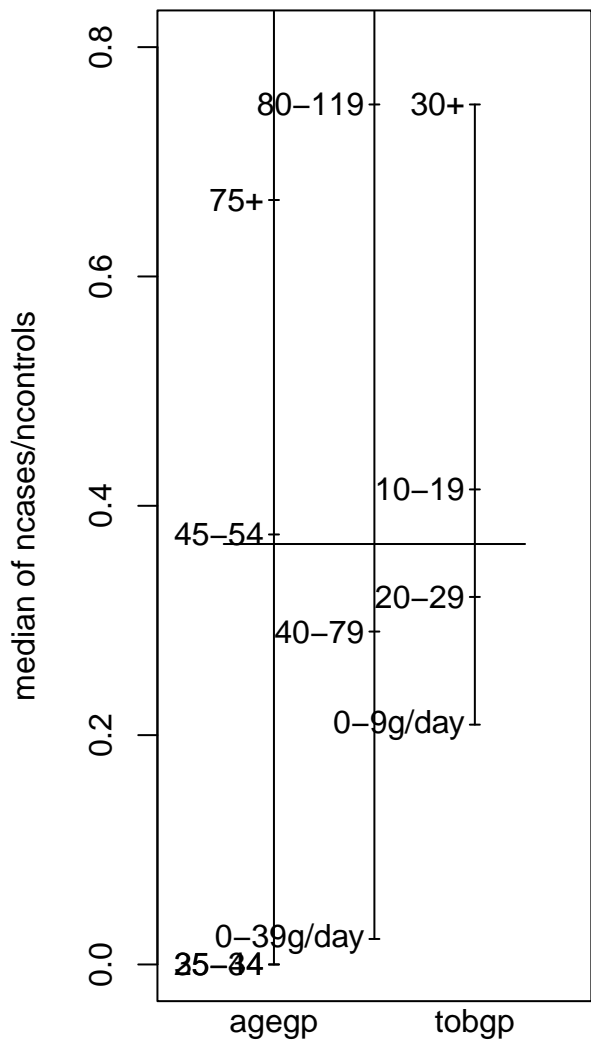
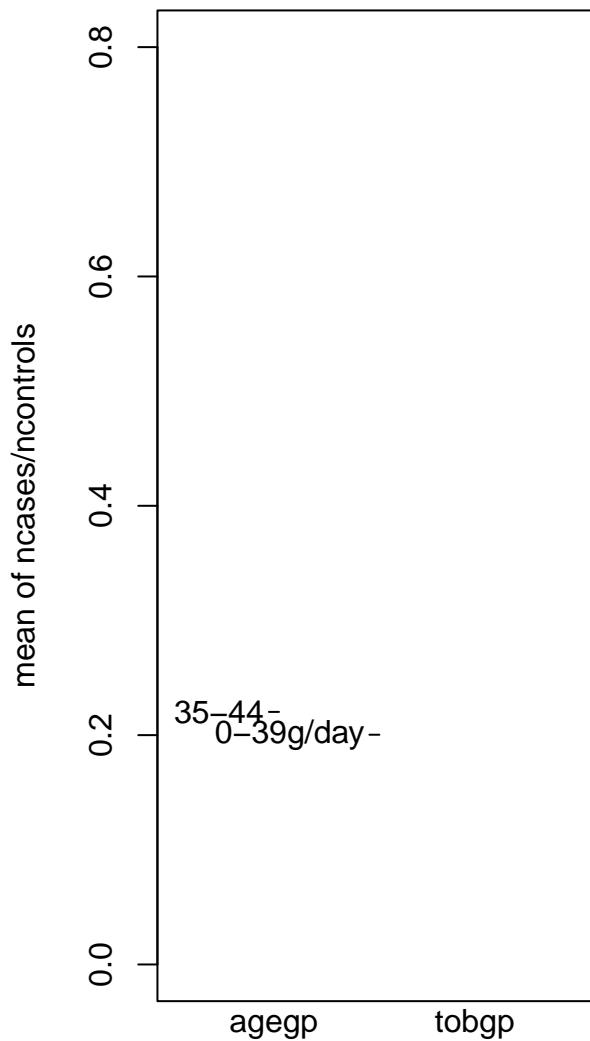




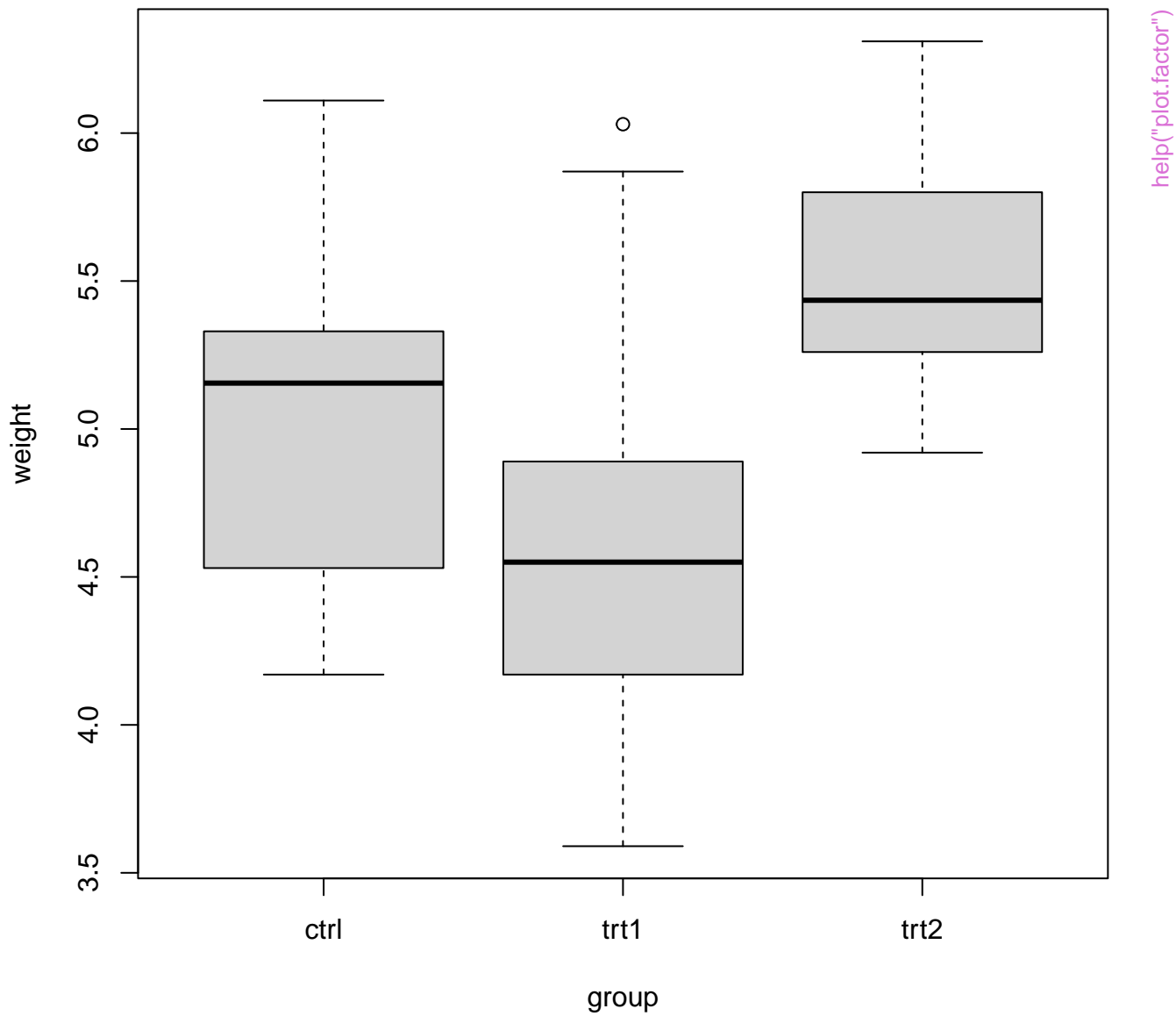


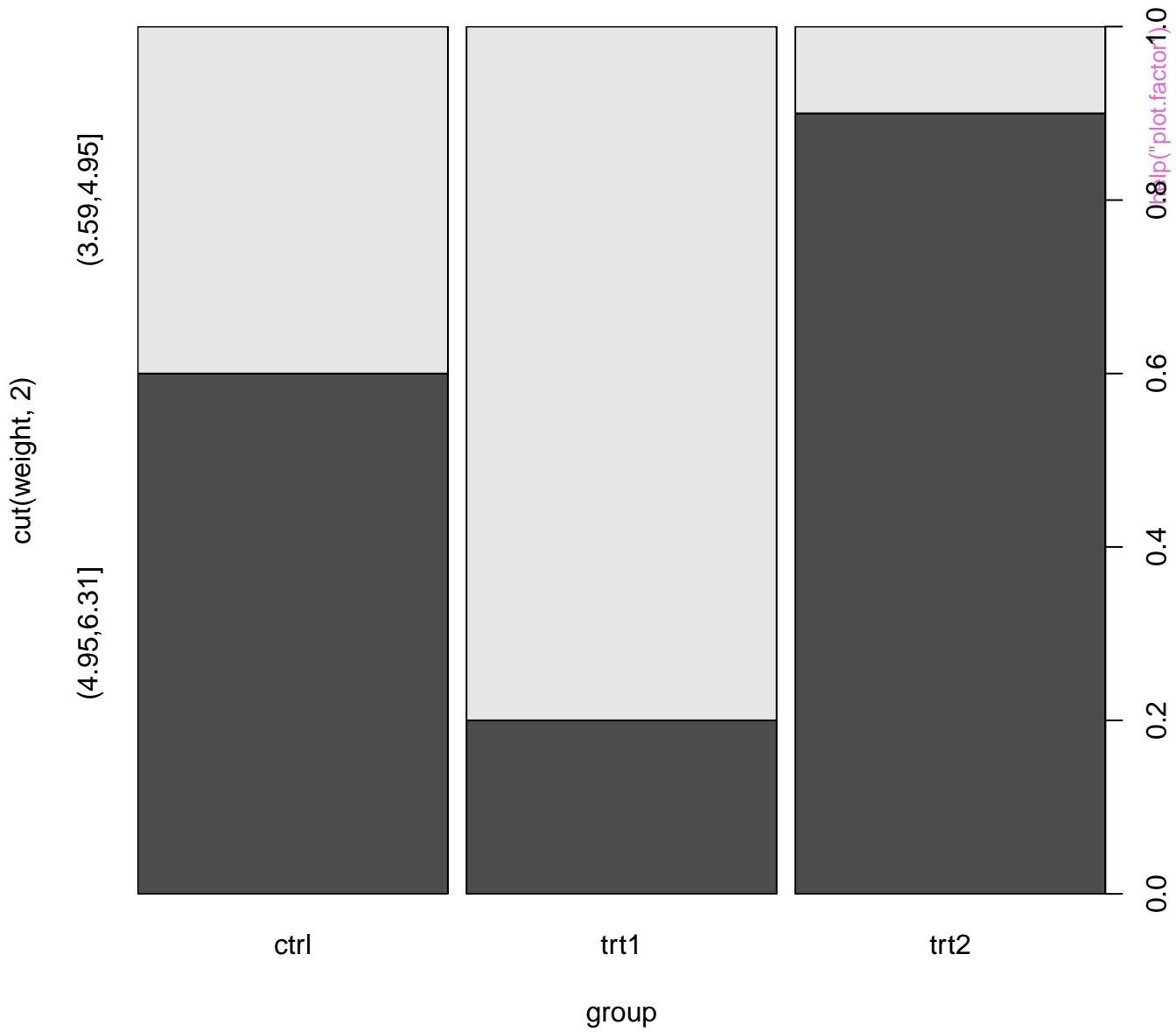


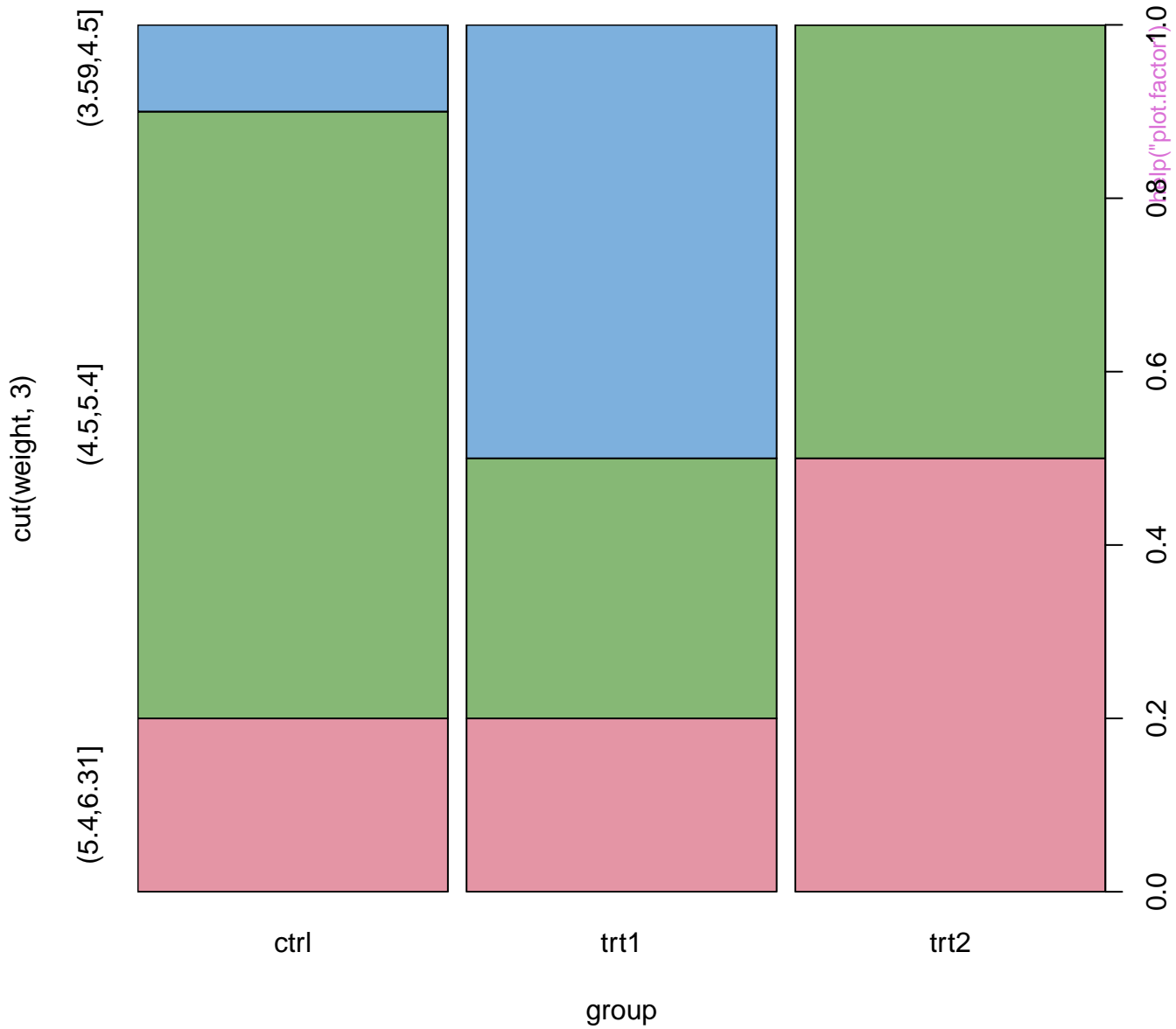




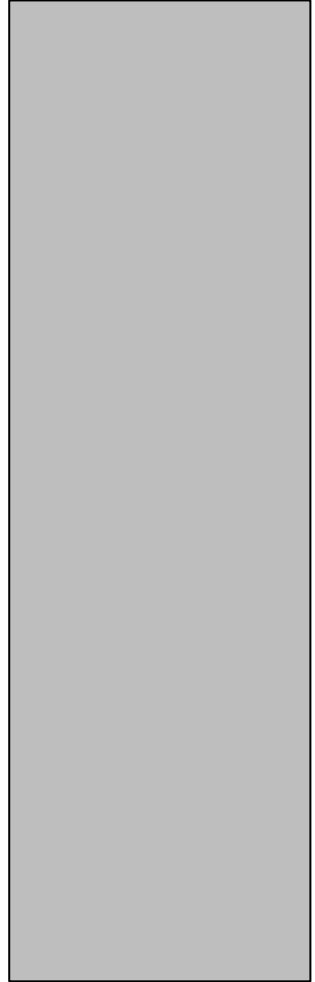
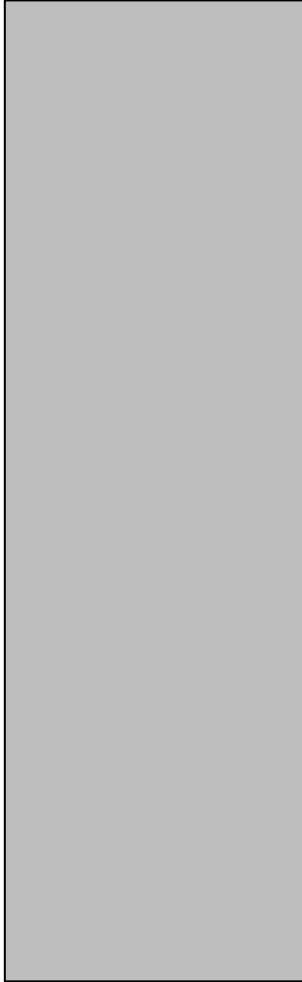
help("plot.design")



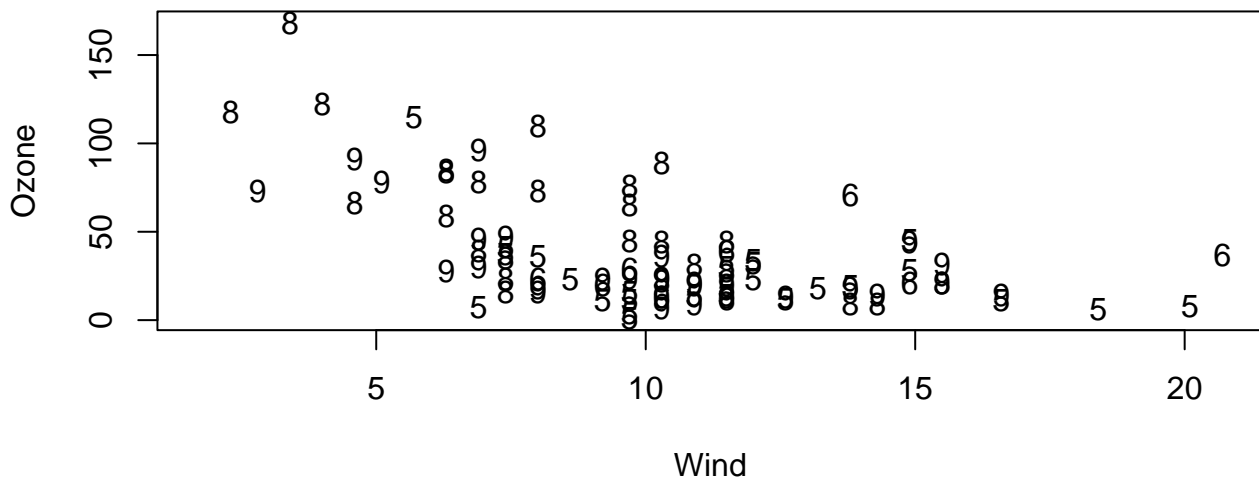
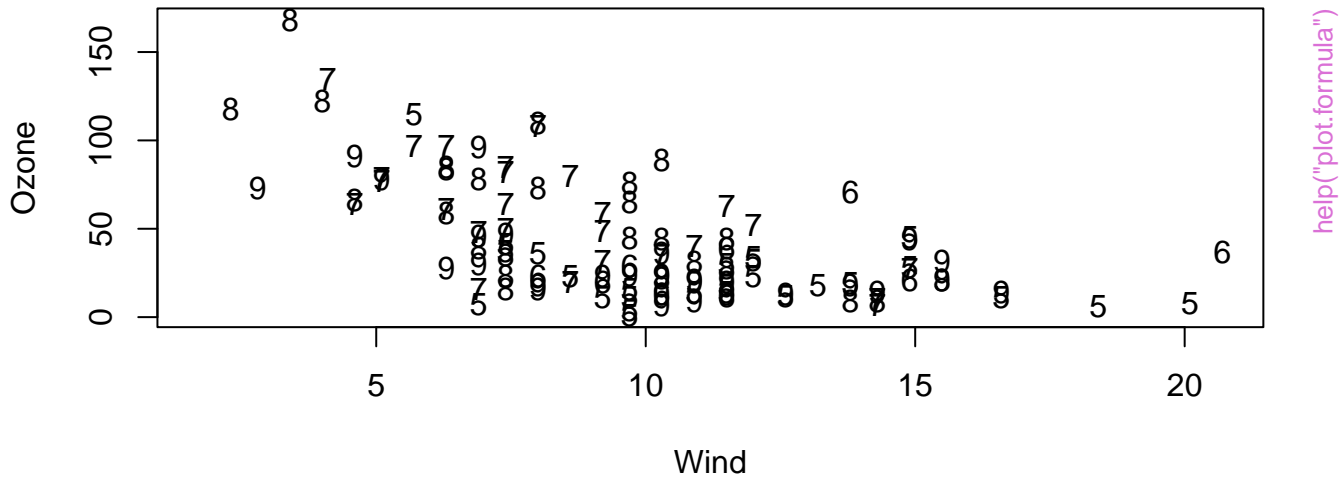


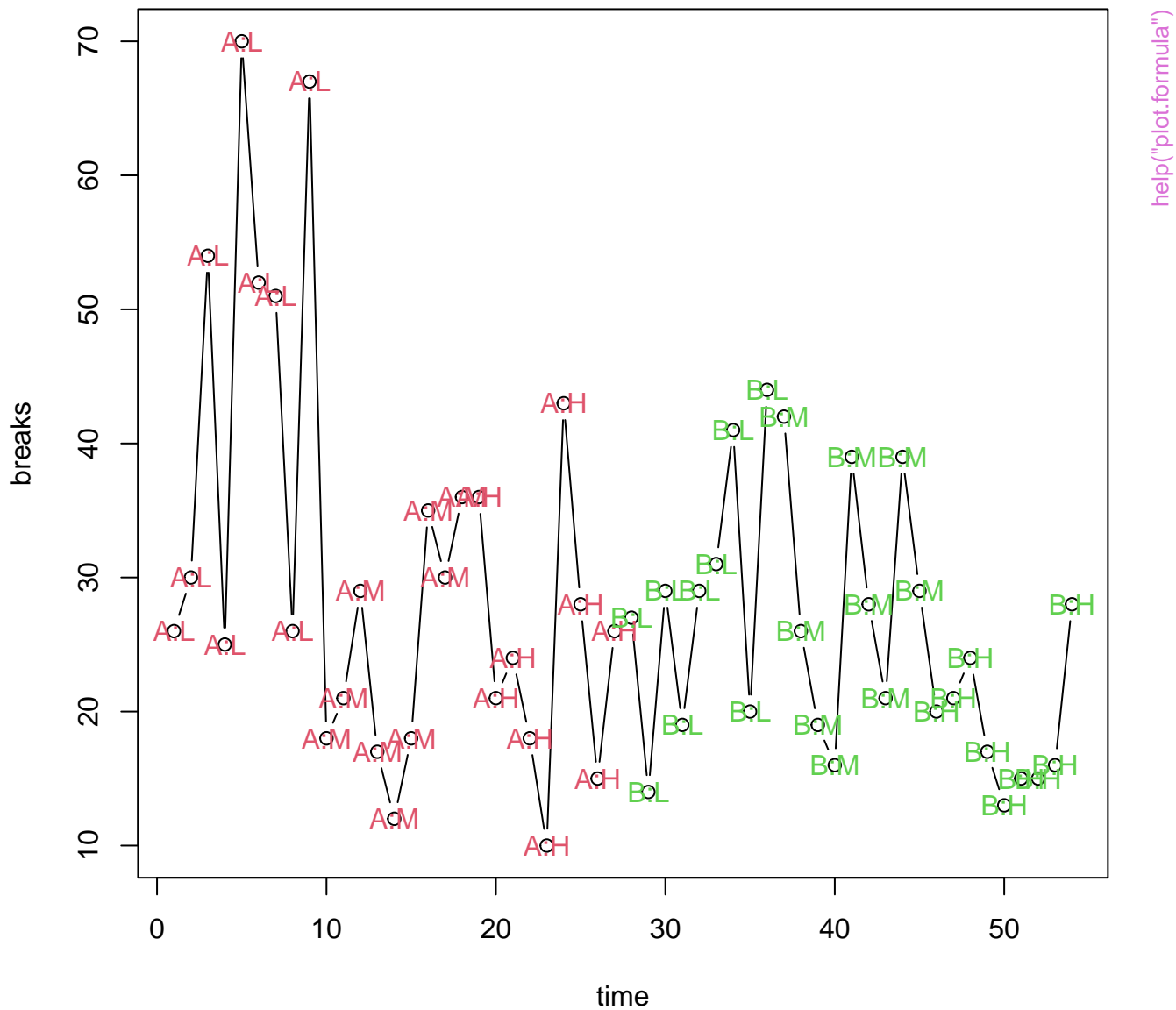


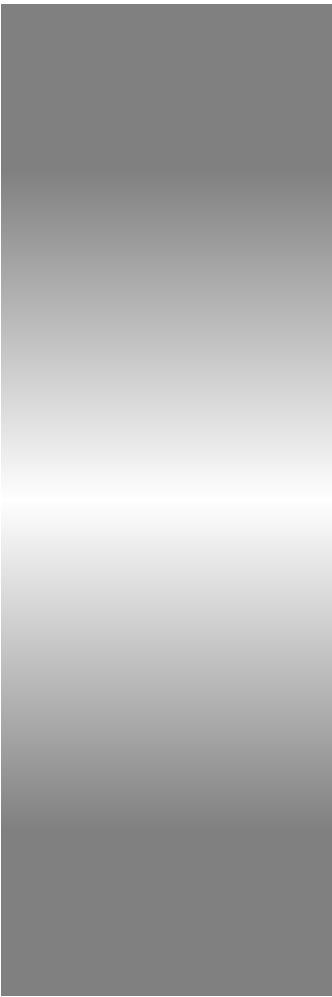
no axes



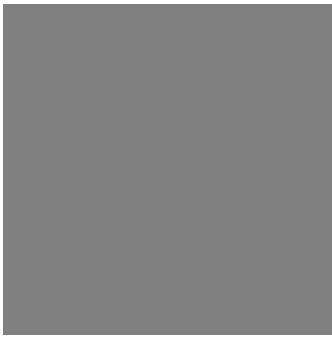
`help("plot.factor")`







`help("plot.raster")`



`help("plot.raster")`

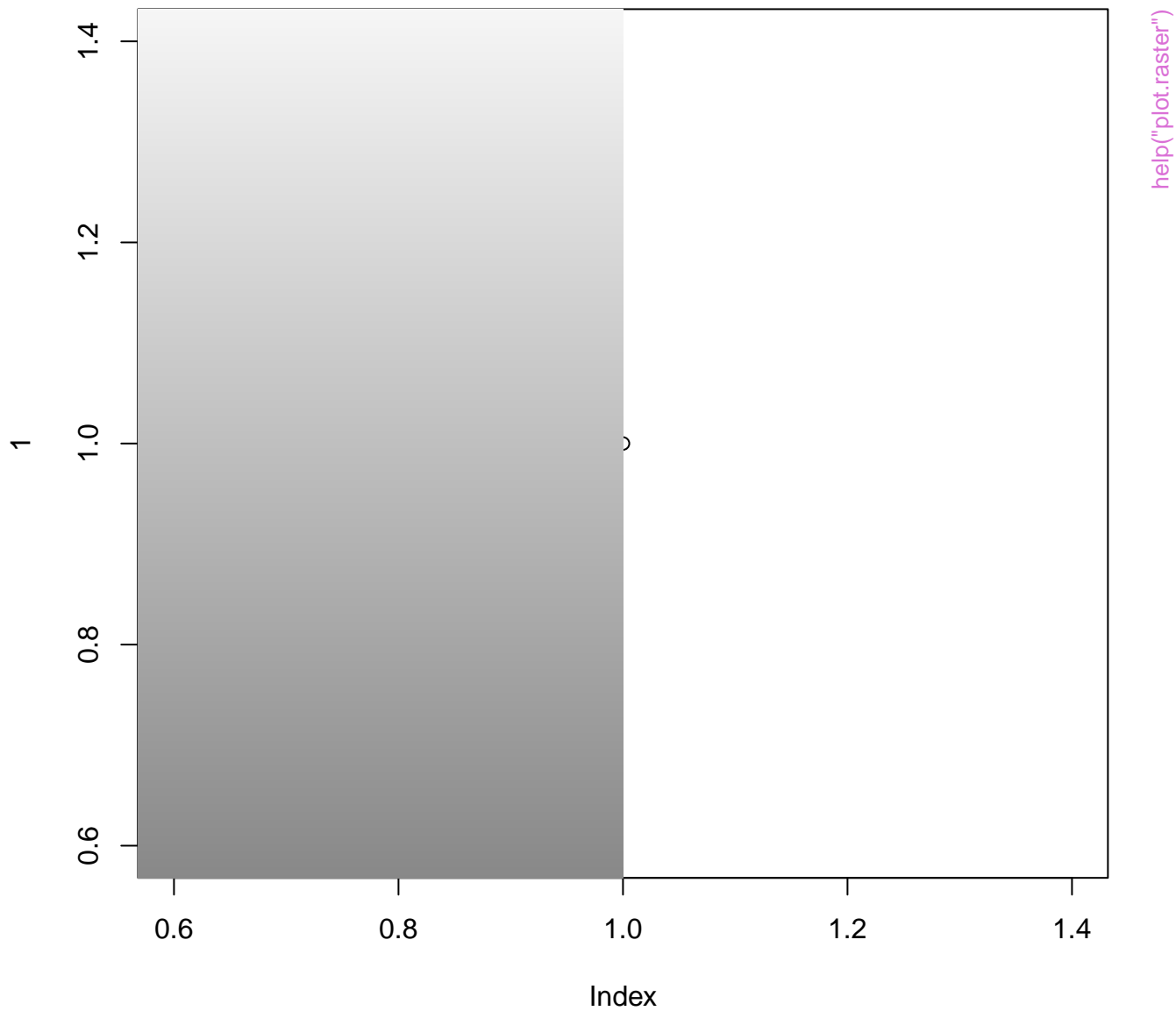


`help("plot.raster")`

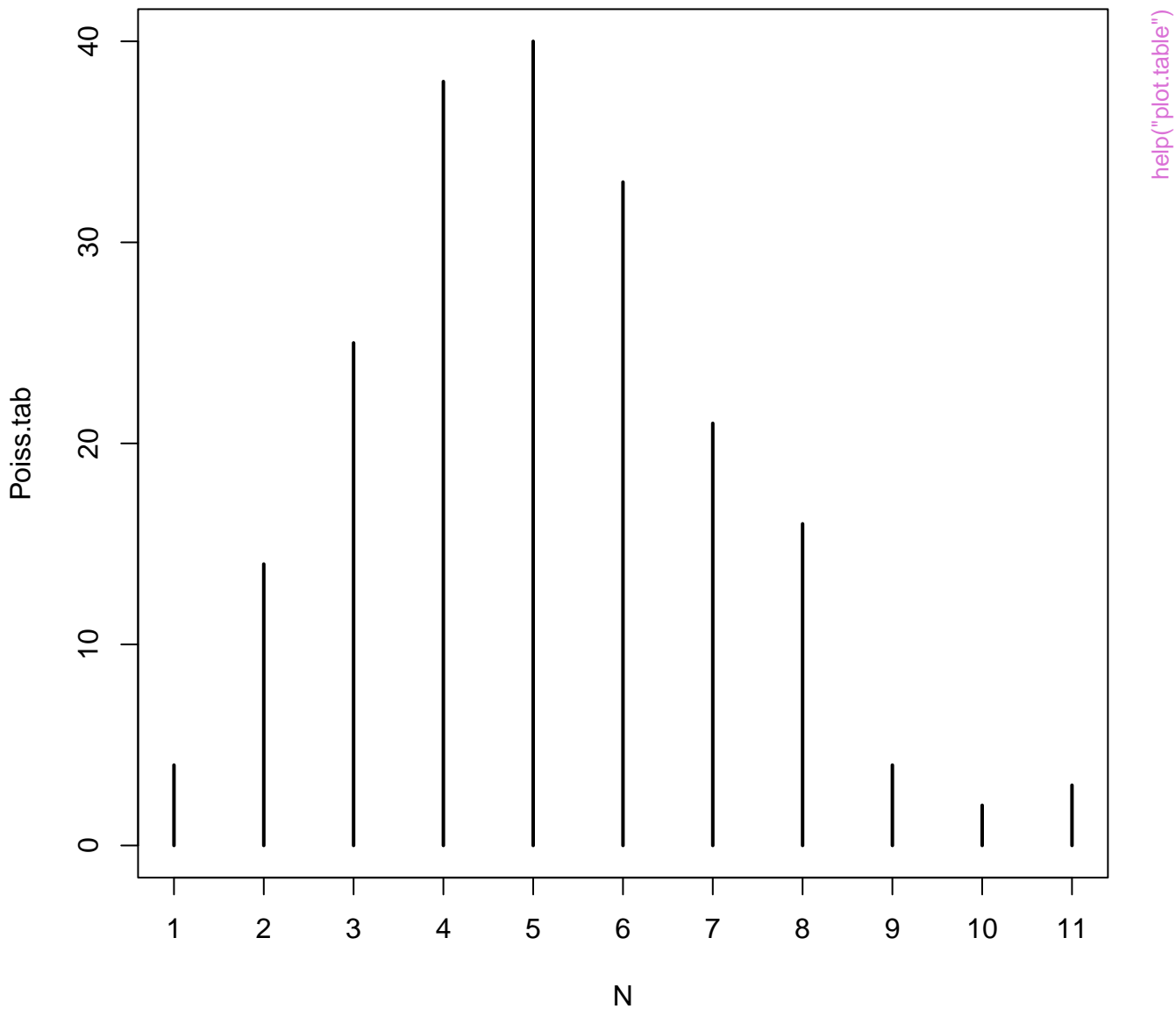
This is my raster

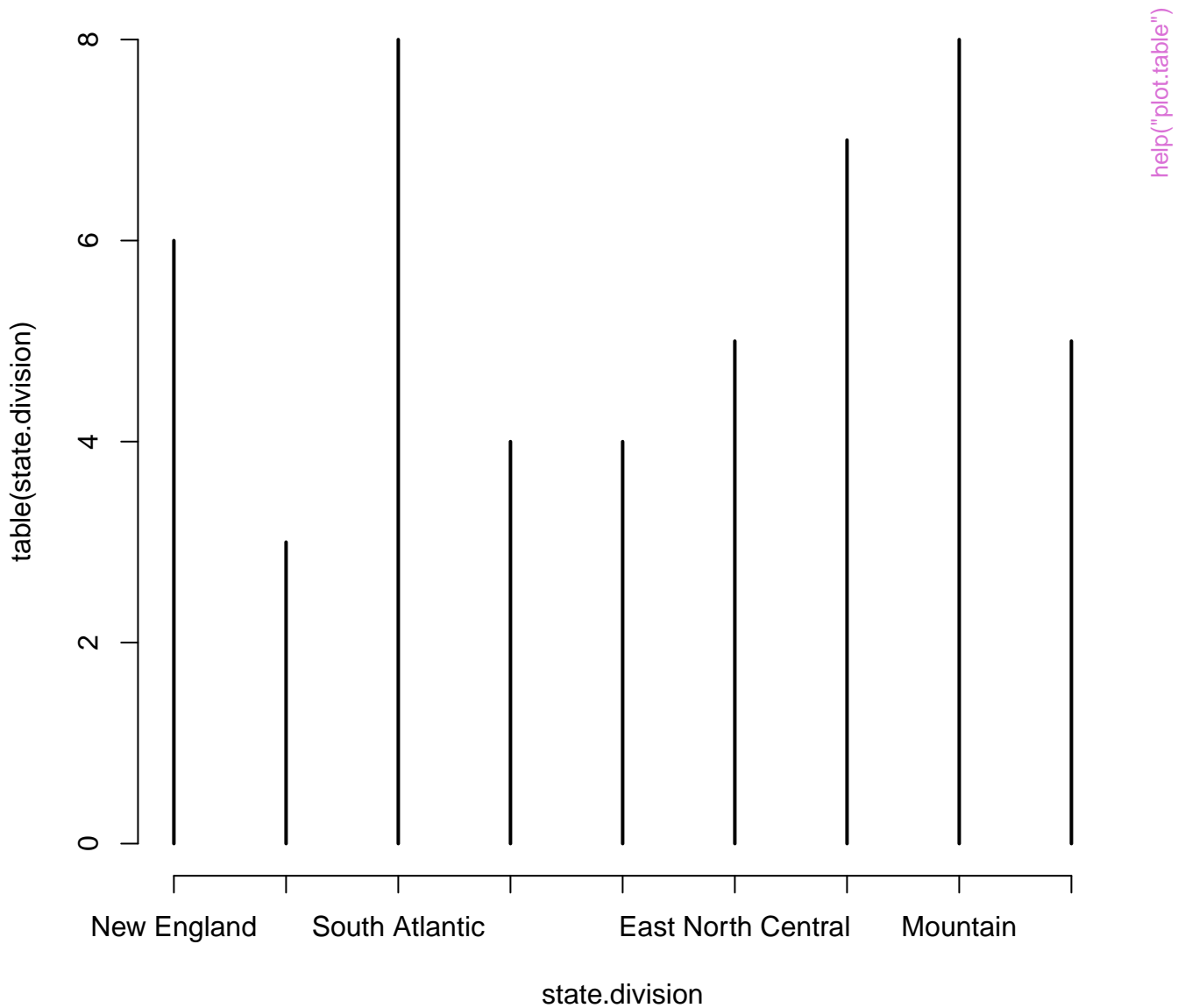


`help("plot.raster")`

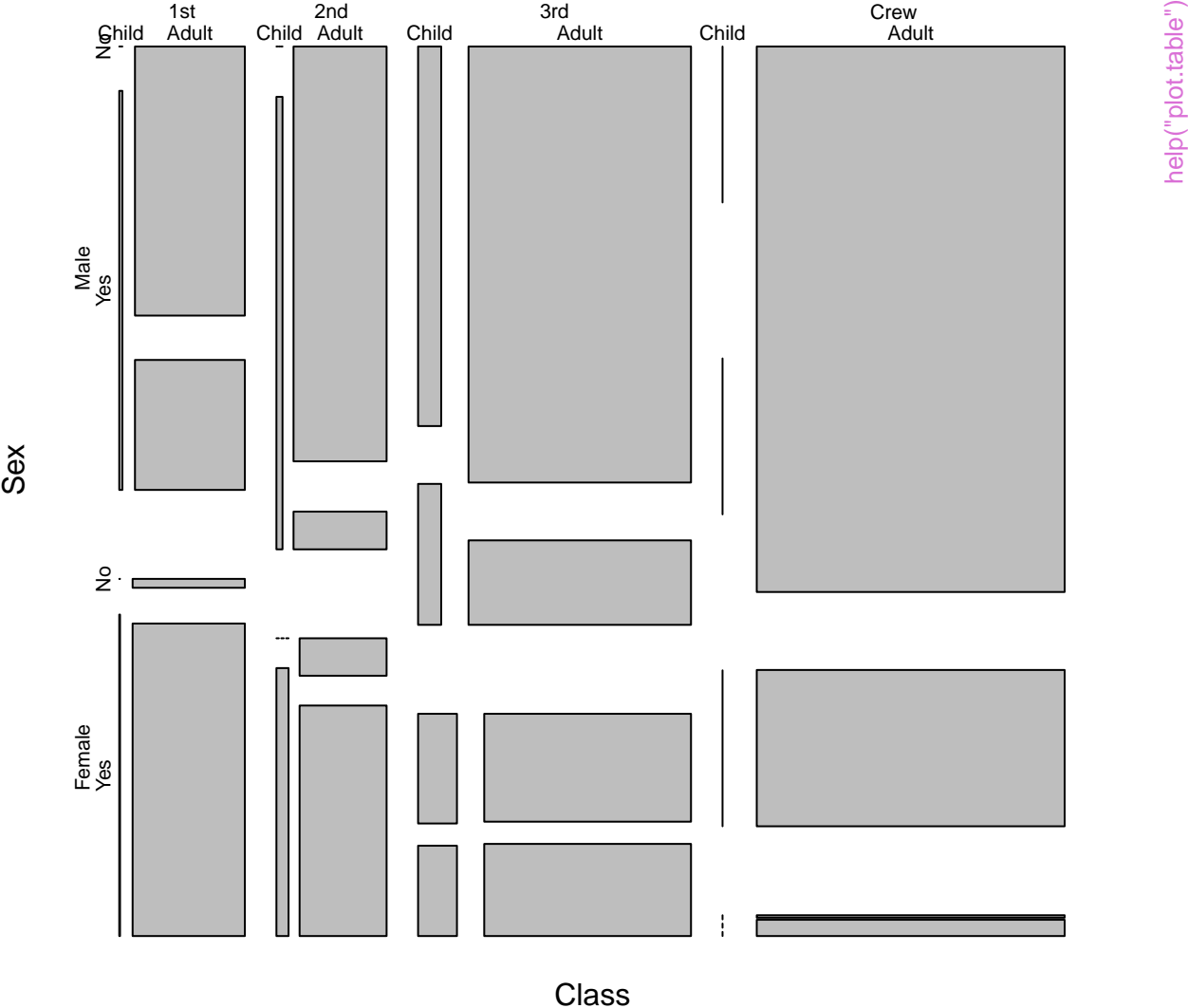


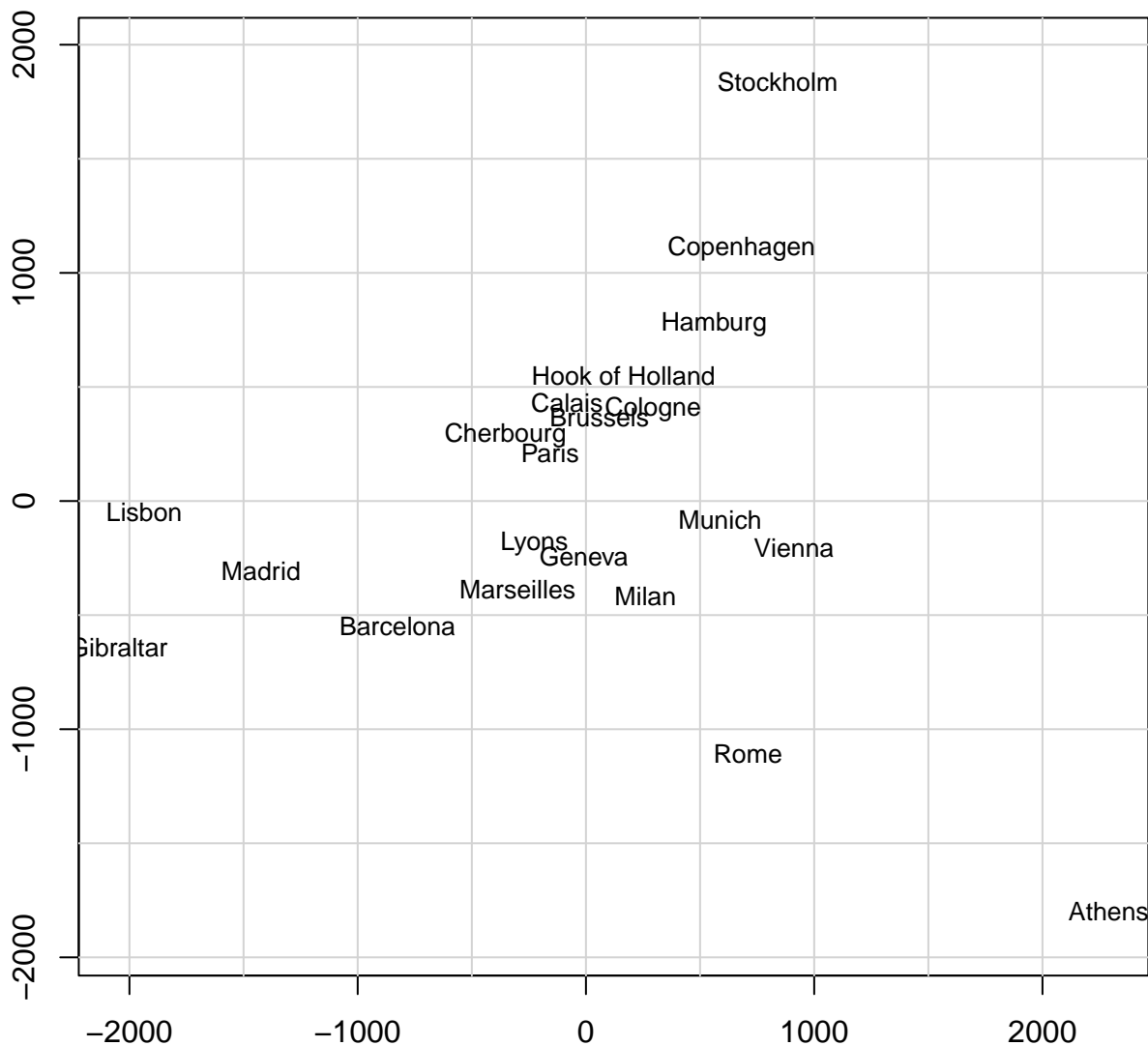
`plot(table(rpois(200, lambda = 5)))`





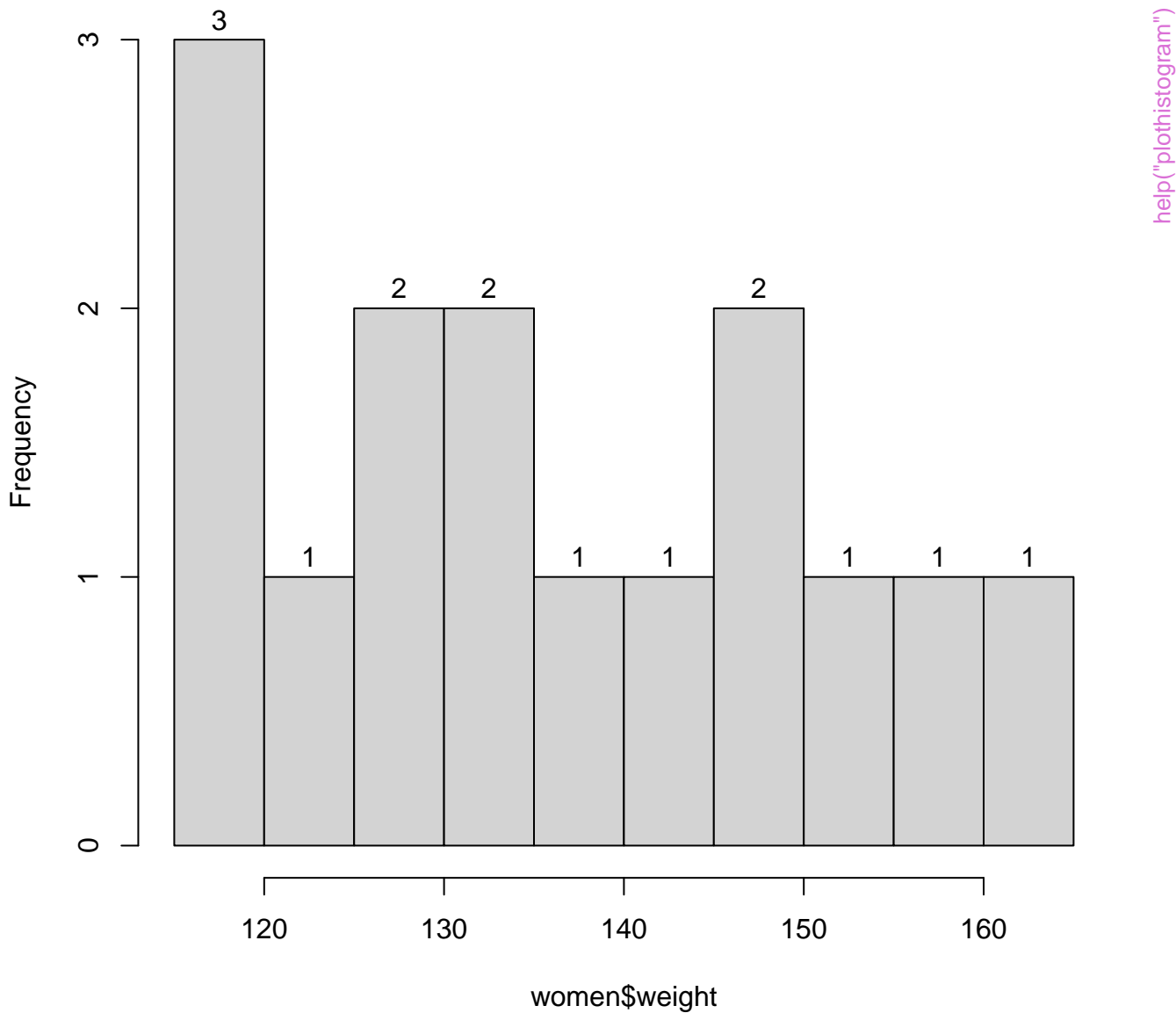
plot(Titanic, main= *)



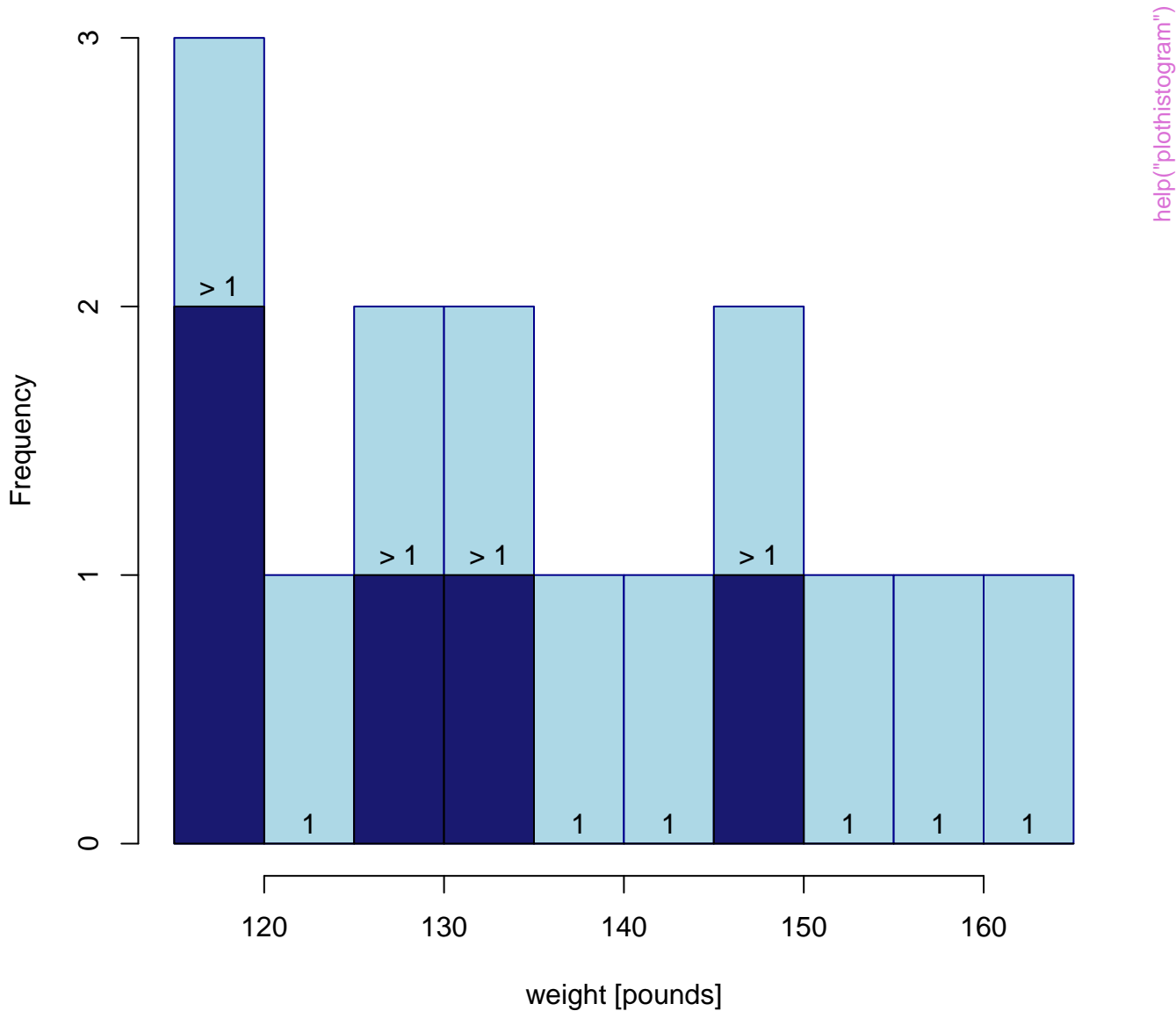


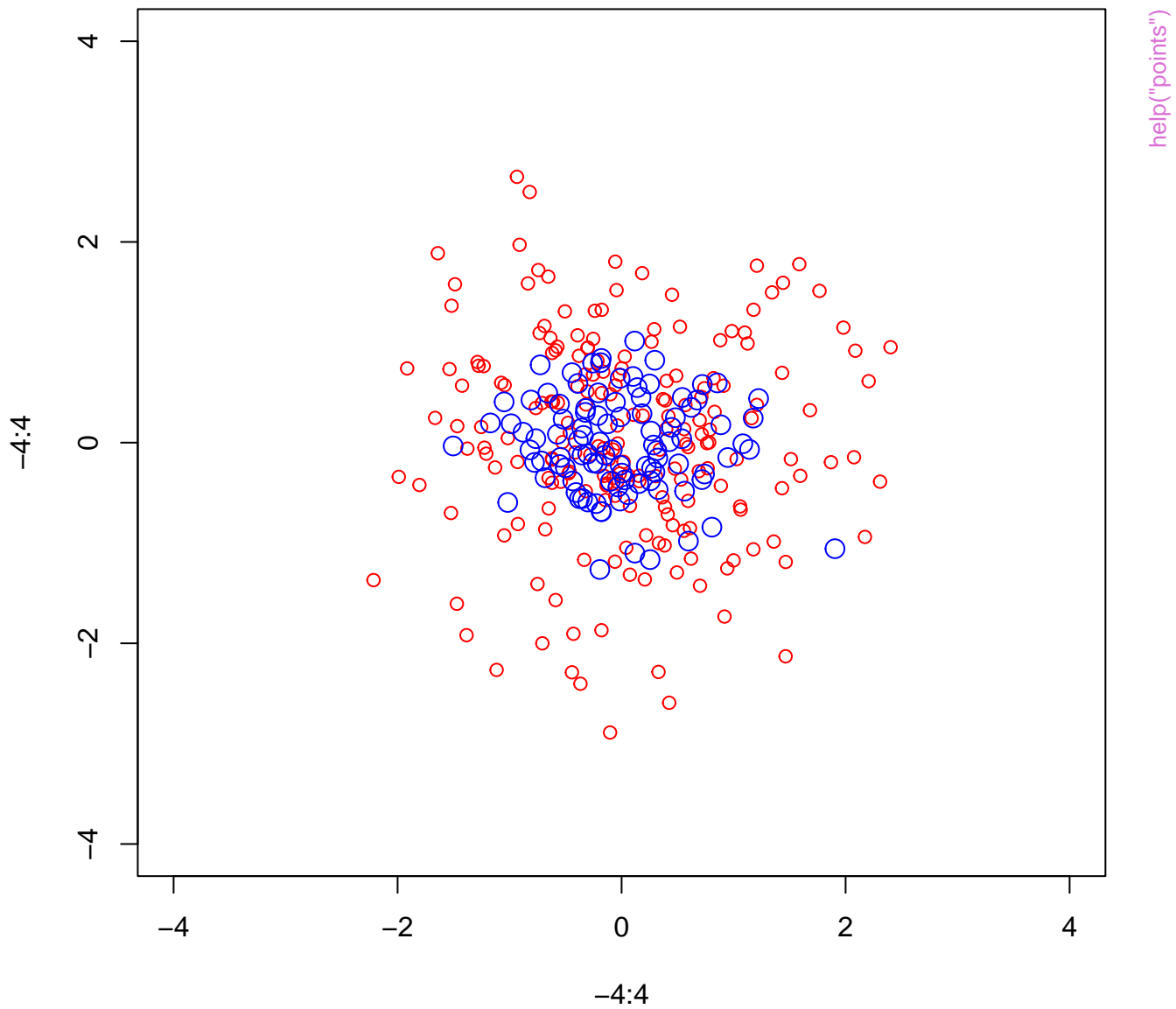
[help\("plot.window"\)](#)

Histogram of women\$weight

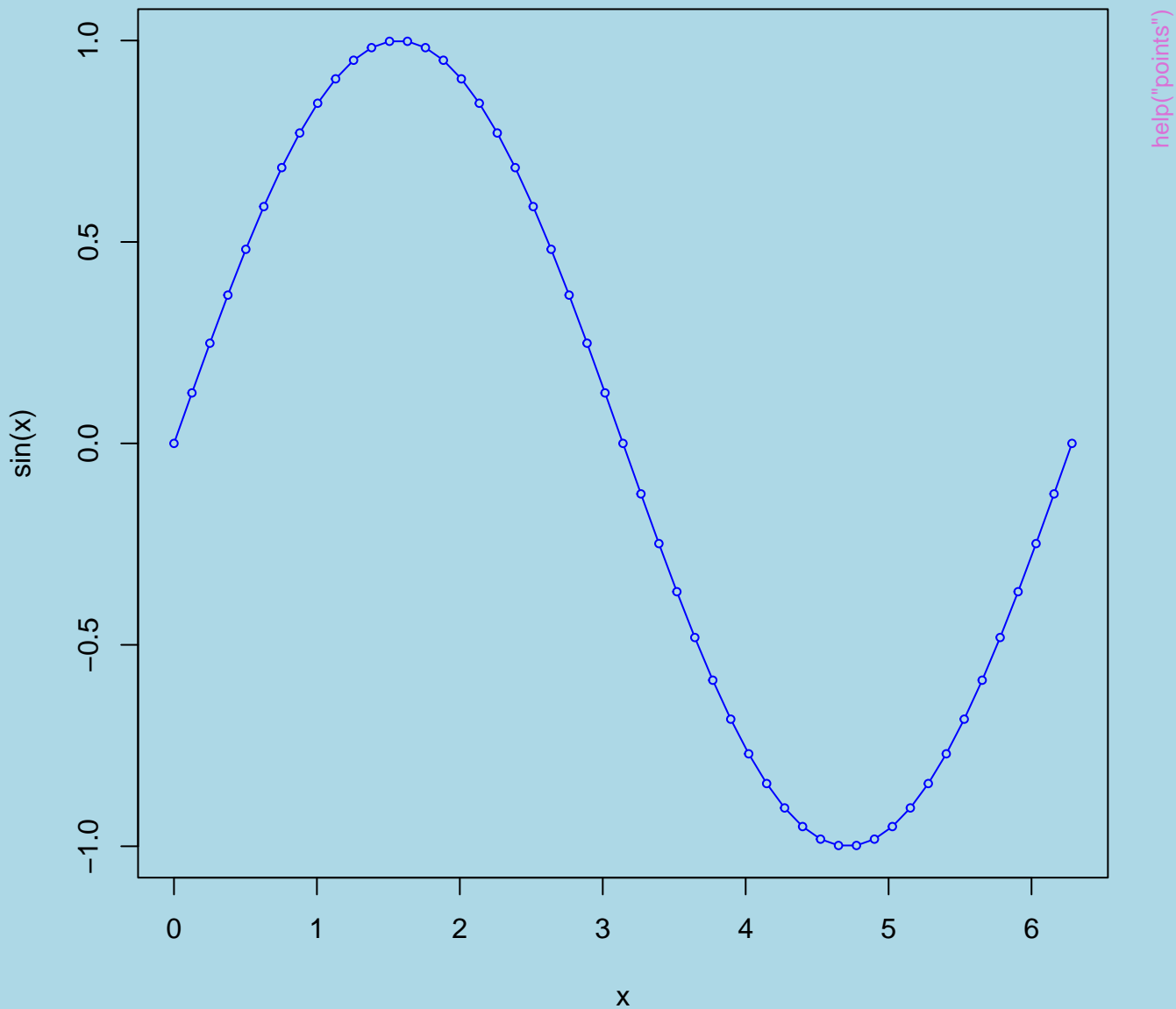


Histogram of 15 women's weights

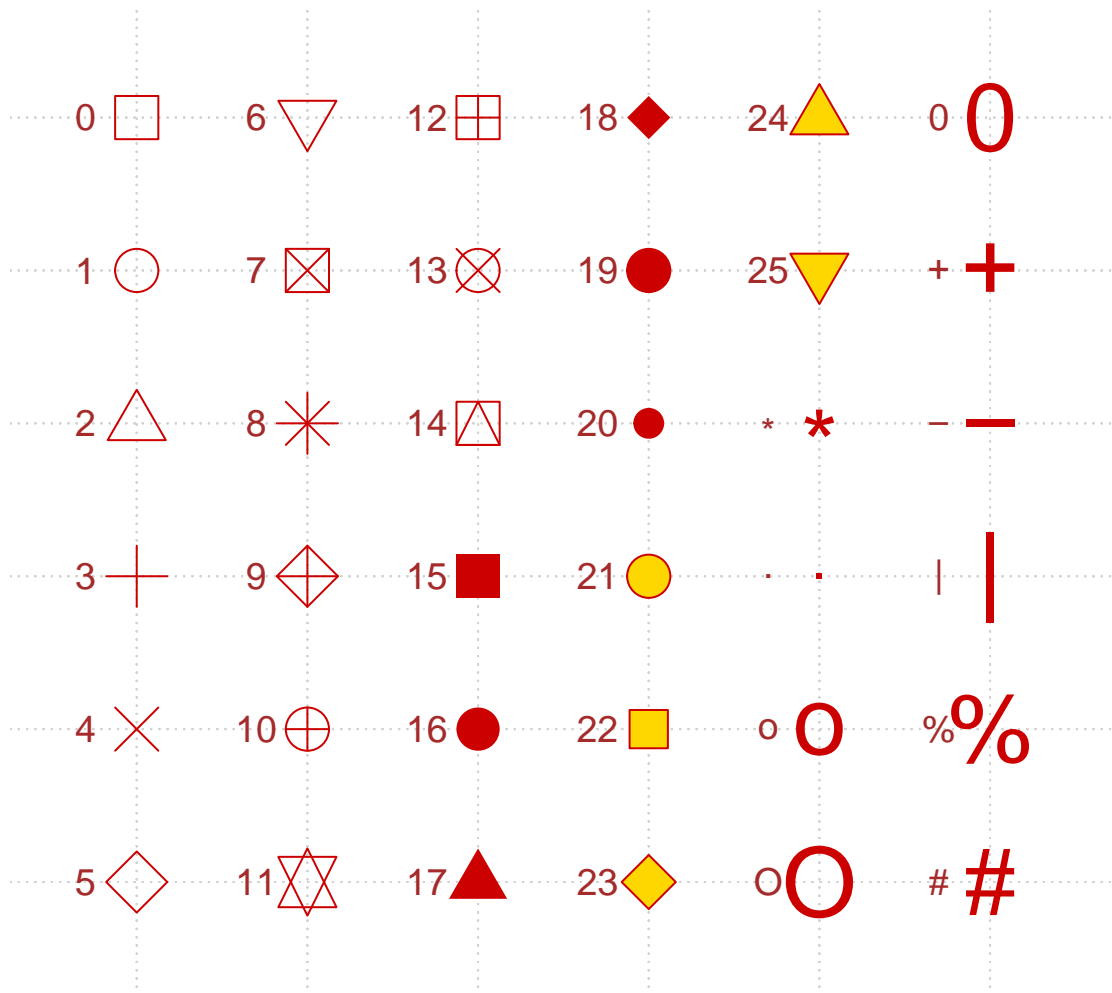




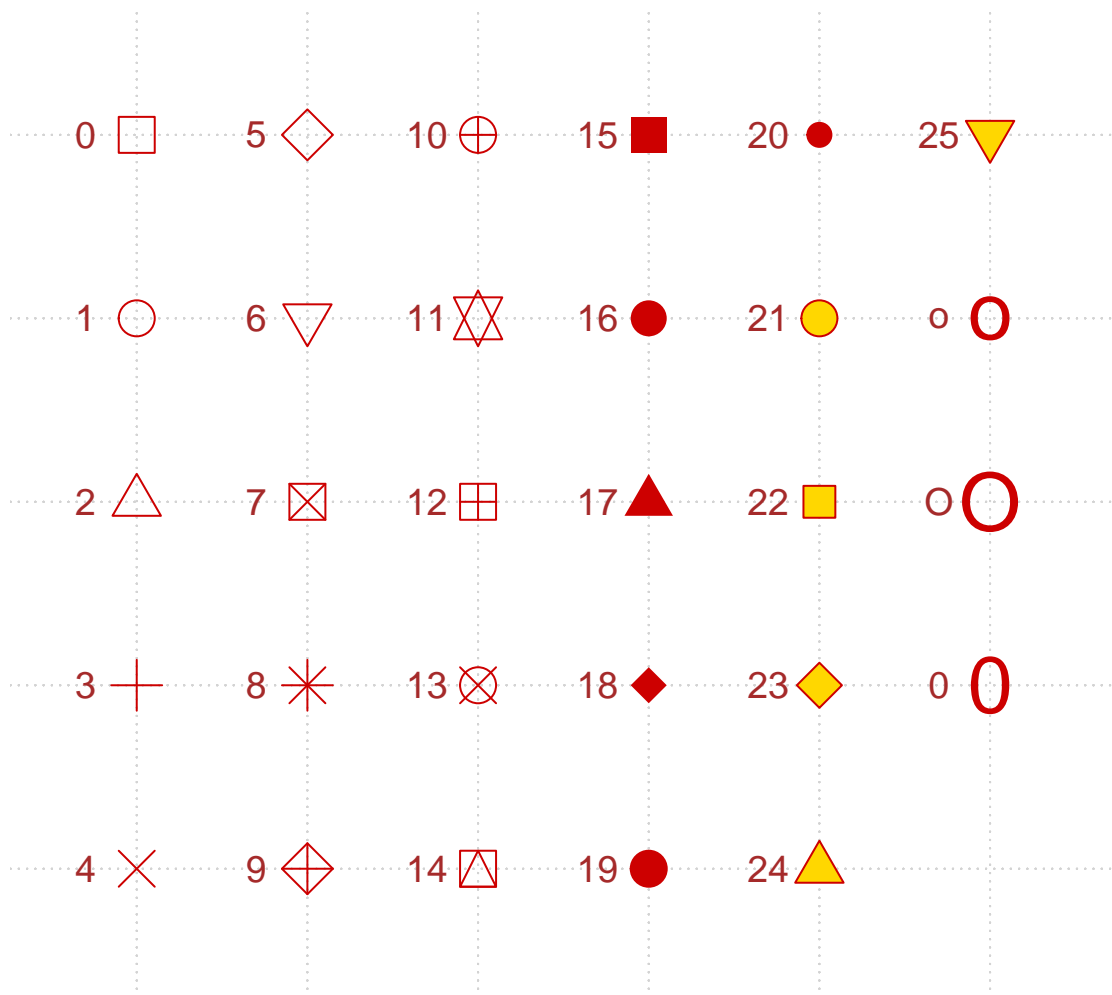
`plot(..., type="o", pch=21, bg=par("bg"))`



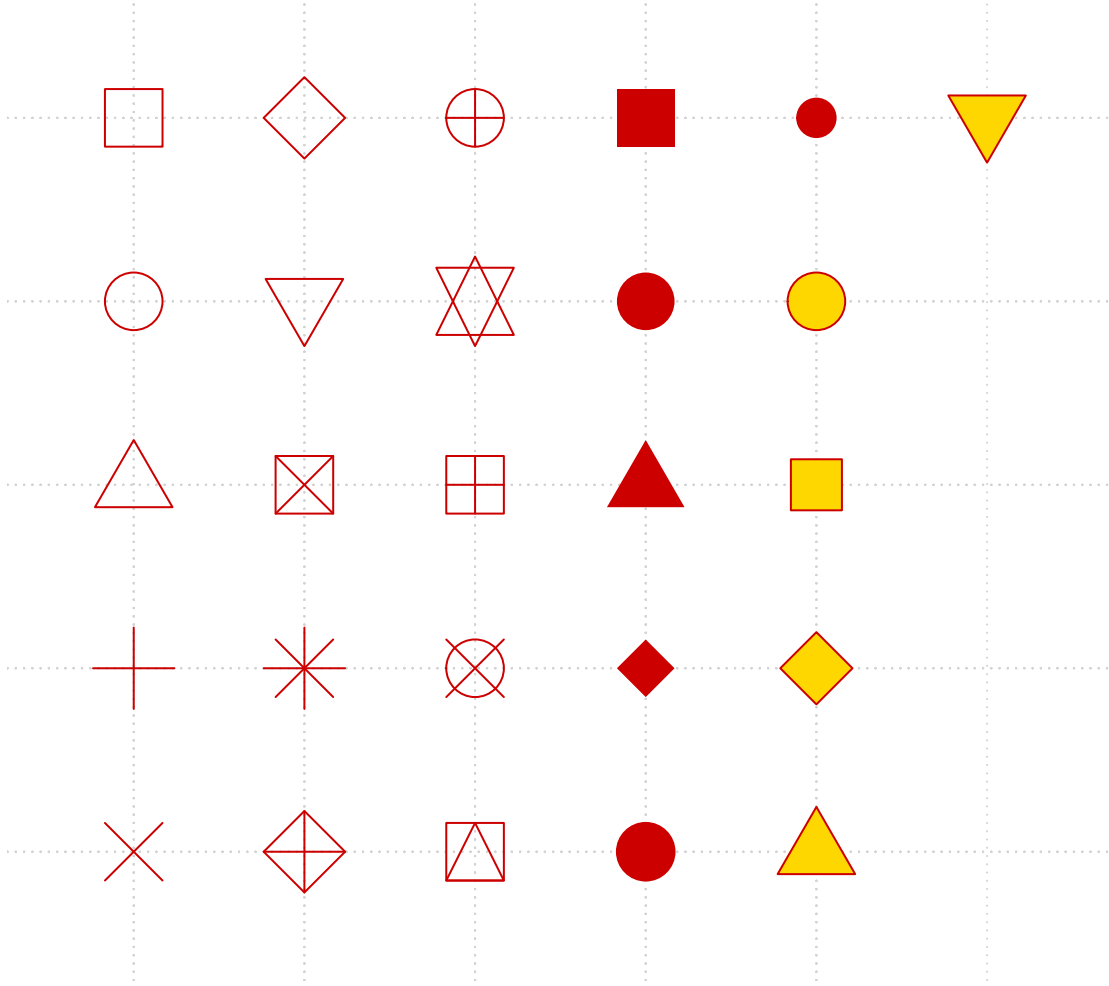
plot symbols : points (... pch = *, cex = 3)



plot symbols : points (... pch = *, cex = 2.5)

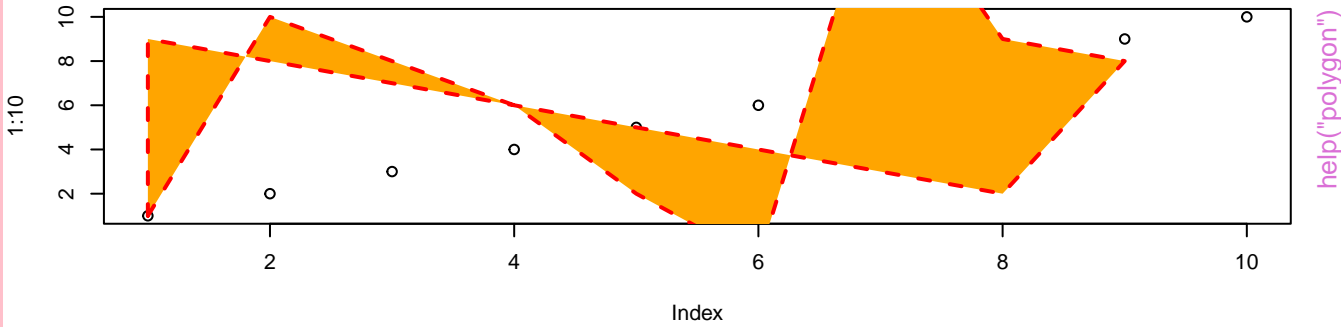


help("points")

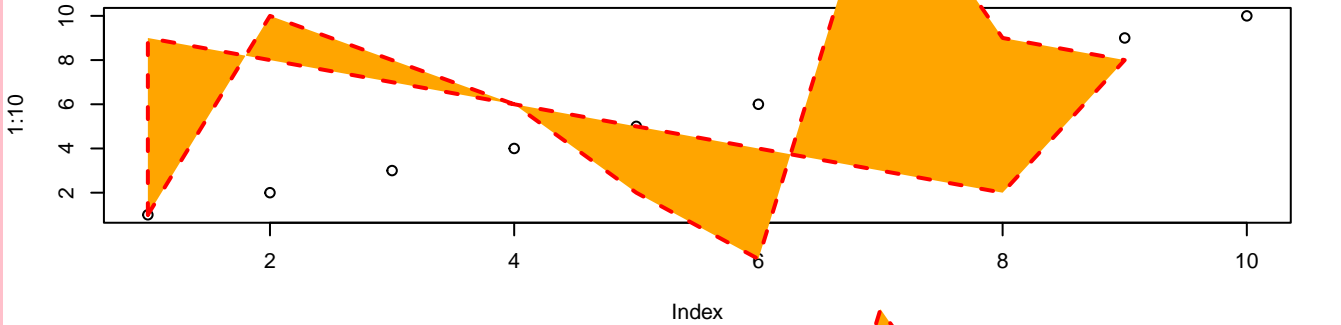


help("points")

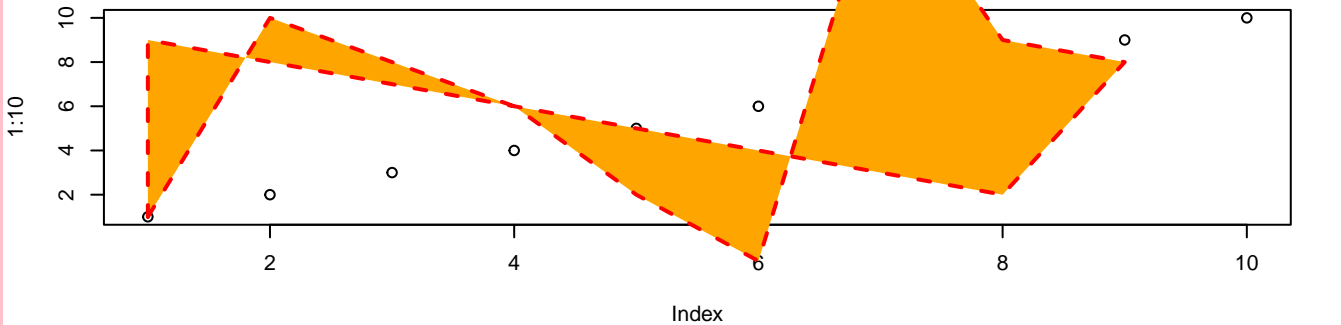
xpd = FALSE



xpd = TRUE

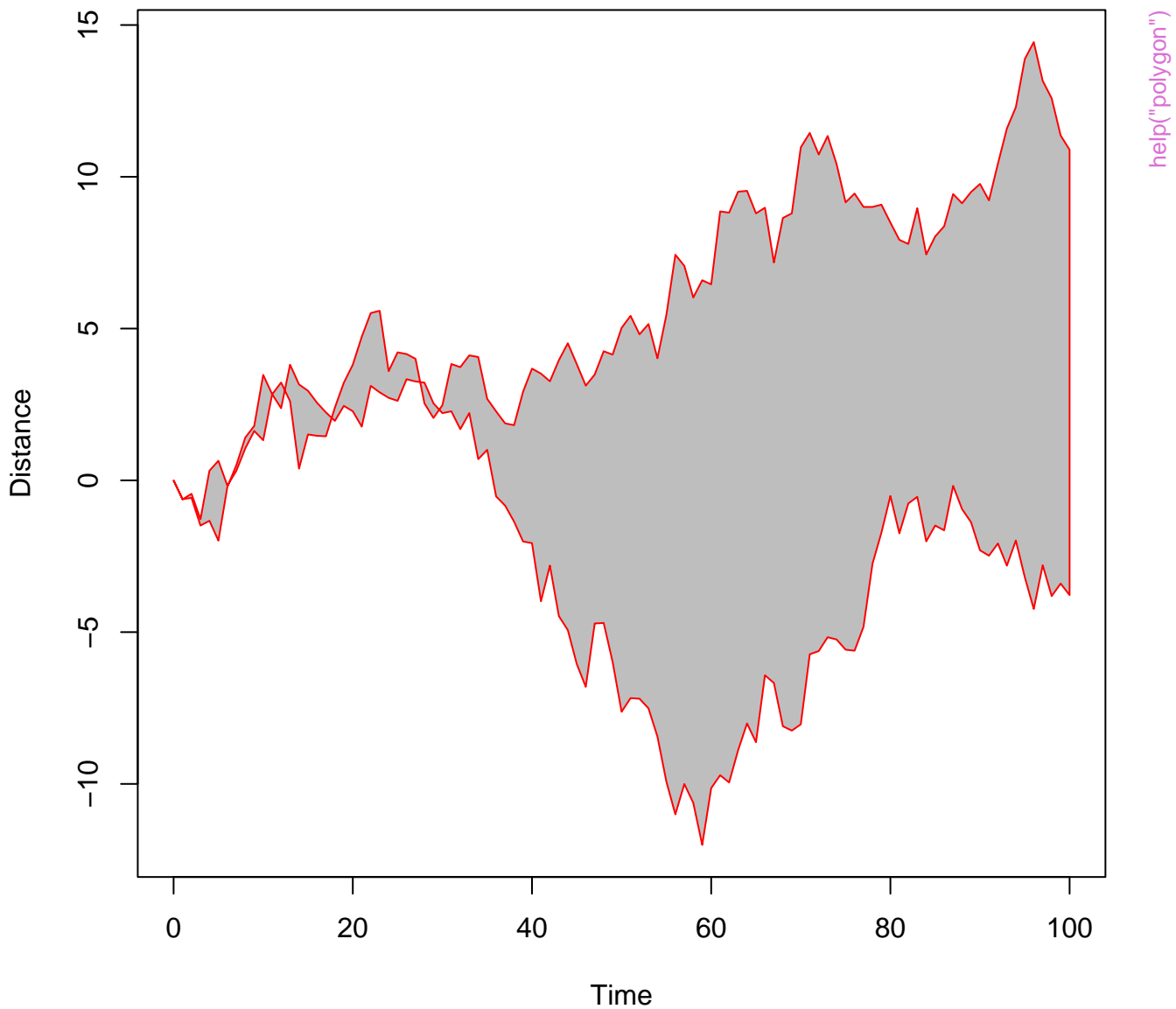


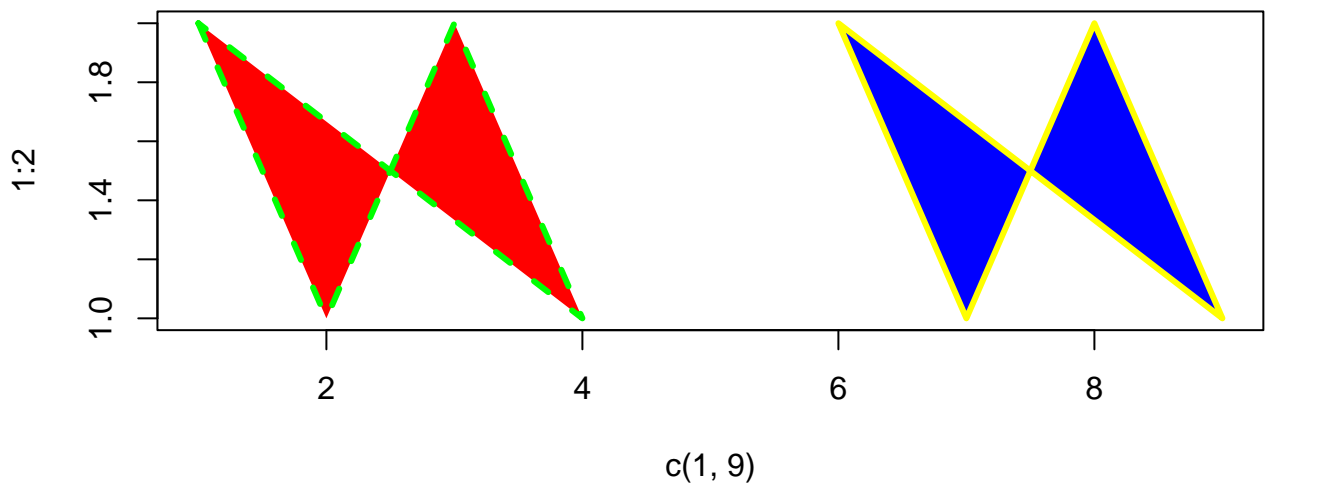
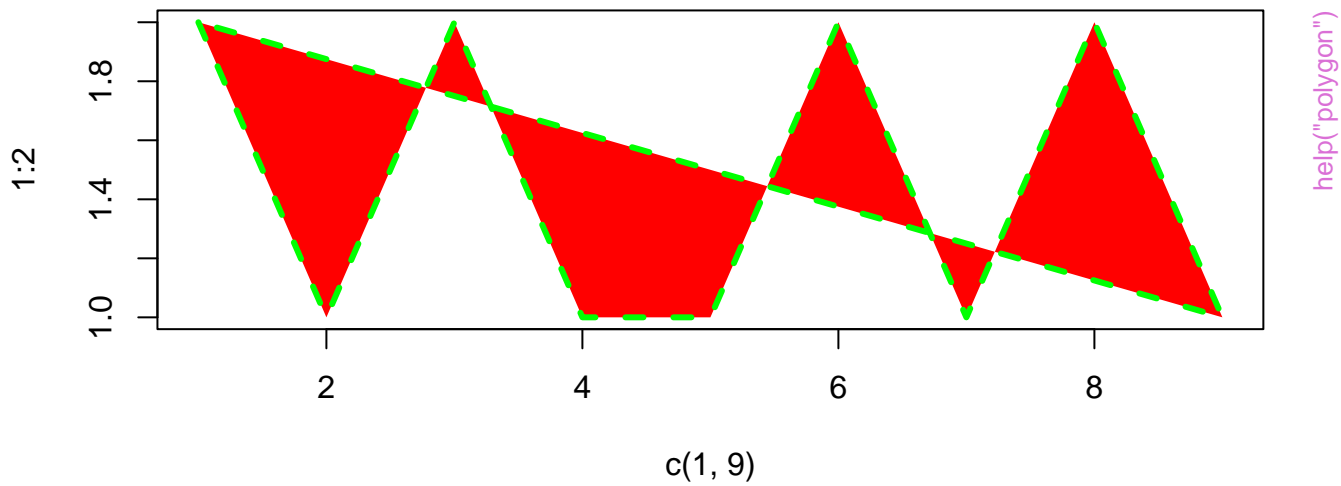
xpd = NA

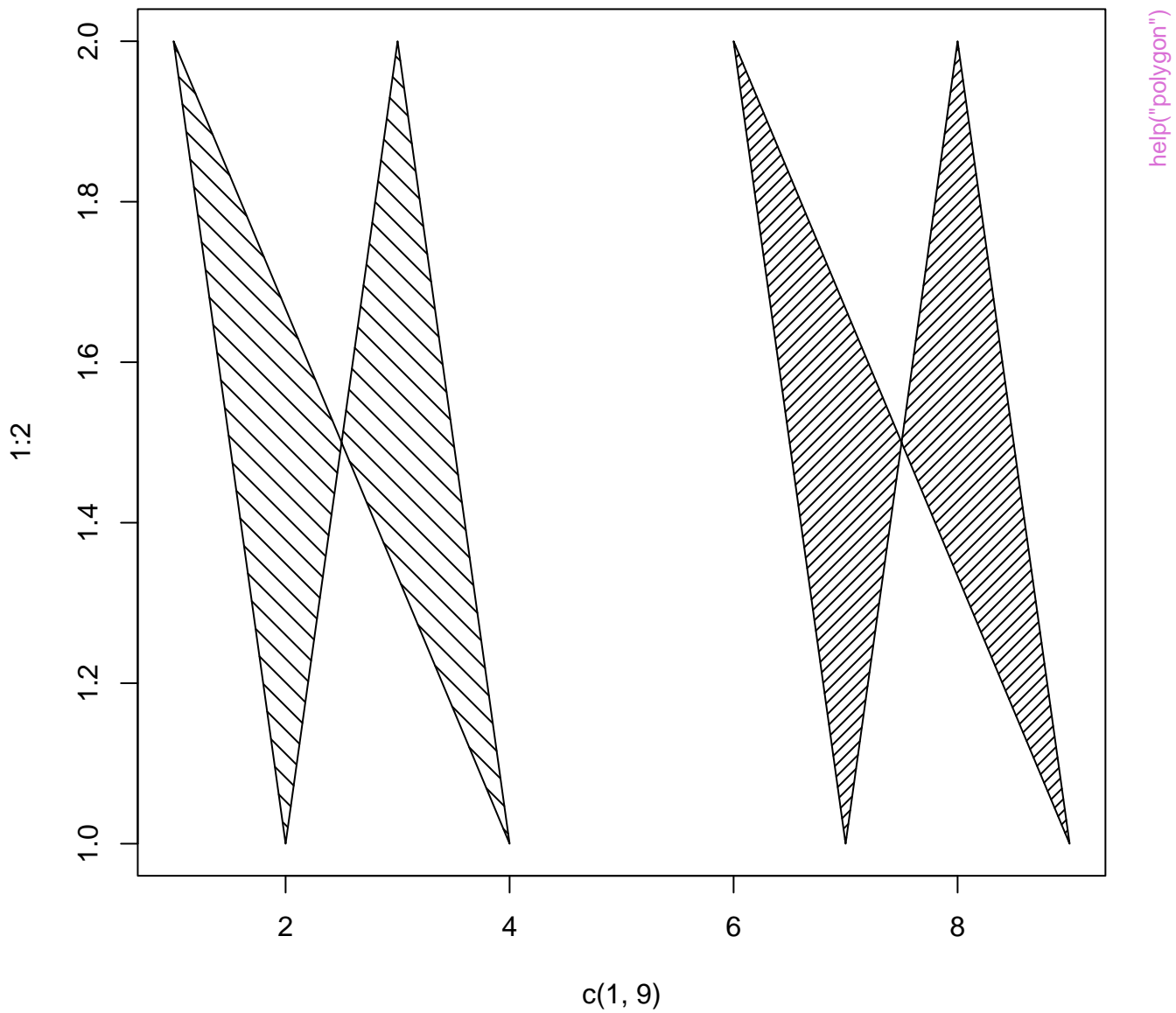


help("polygon")

Distance Between Brownian Motions



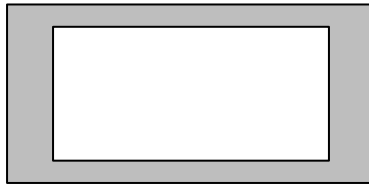




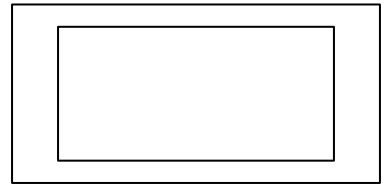
Nested rectangles, both clockwise



Rule: winding



Rule: evenodd



help("polypath")

Nested rectangles, outer clockwise, inner anti-clockwise



Rule: winding



Rule: evenodd



Disjoint rectangles



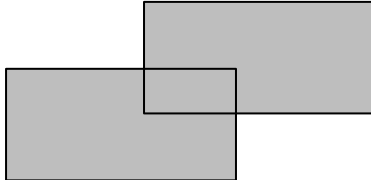
Rule: winding



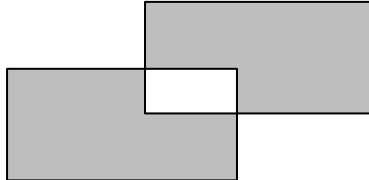
Rule: evenodd



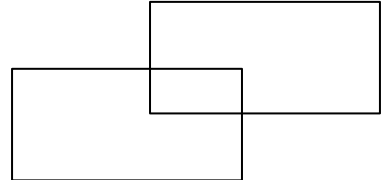
Overlapping rectangles, both clockwise



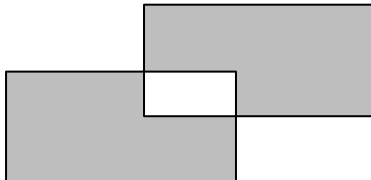
Rule: winding



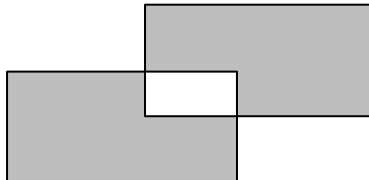
Rule: evenodd



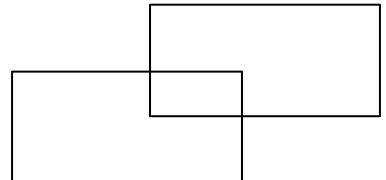
Overlapping rectangles, one clockwise, other anti-clockwise

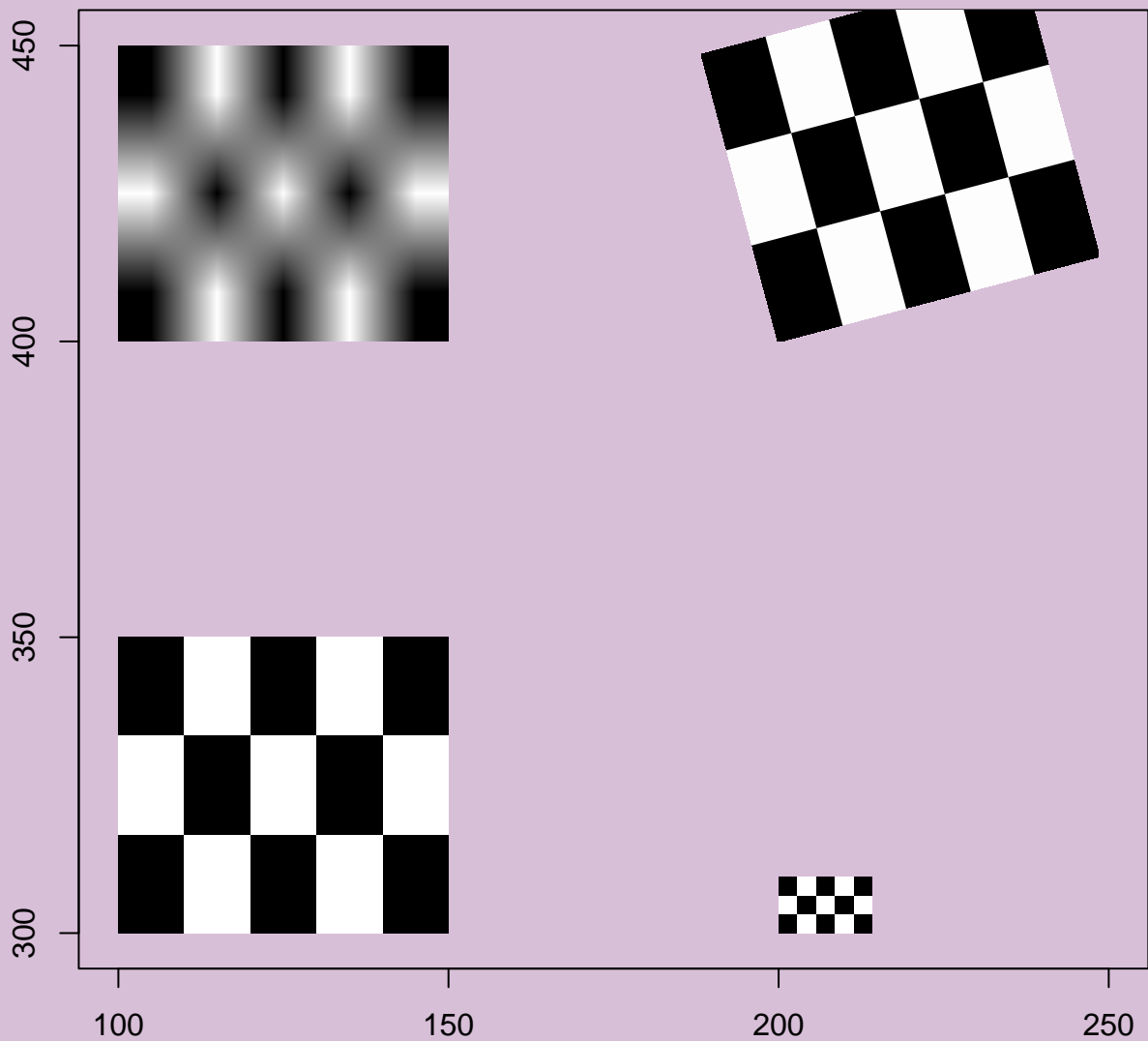


Rule: winding



Rule: evenodd

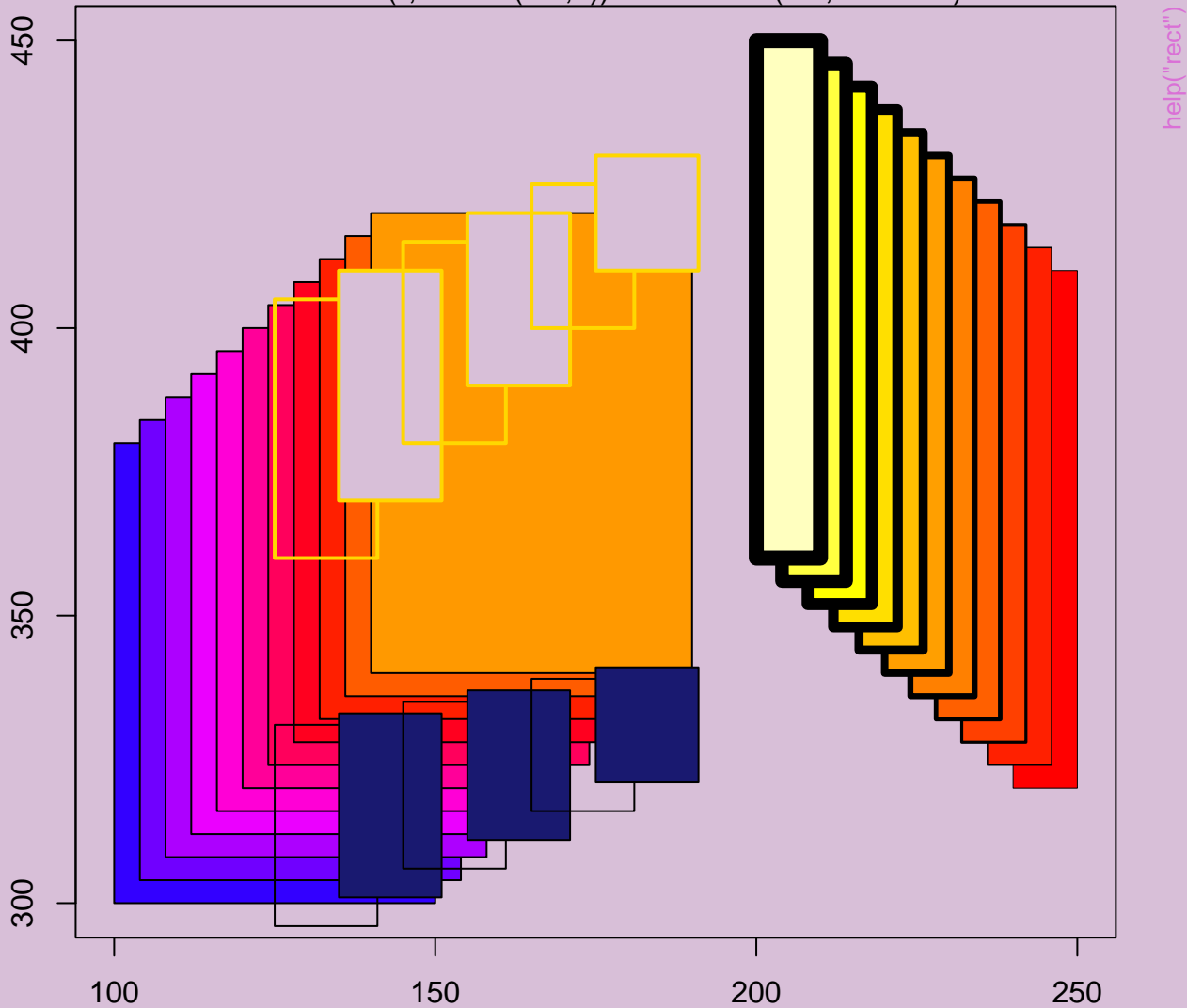


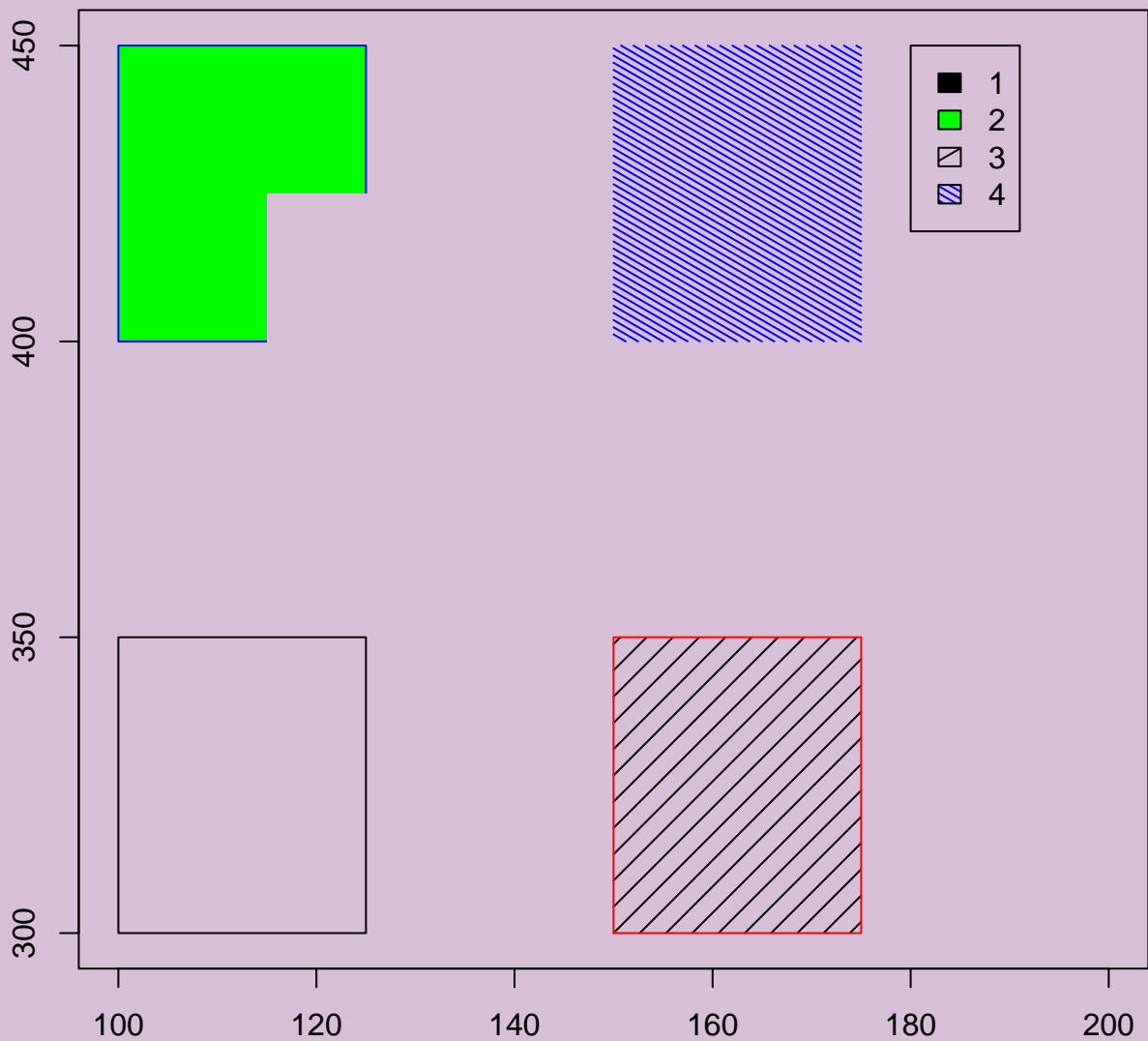


`help("rasterImage")`

2 x 11 rectangles; 'rect(100+i,300+i, 150+i,380+i)'

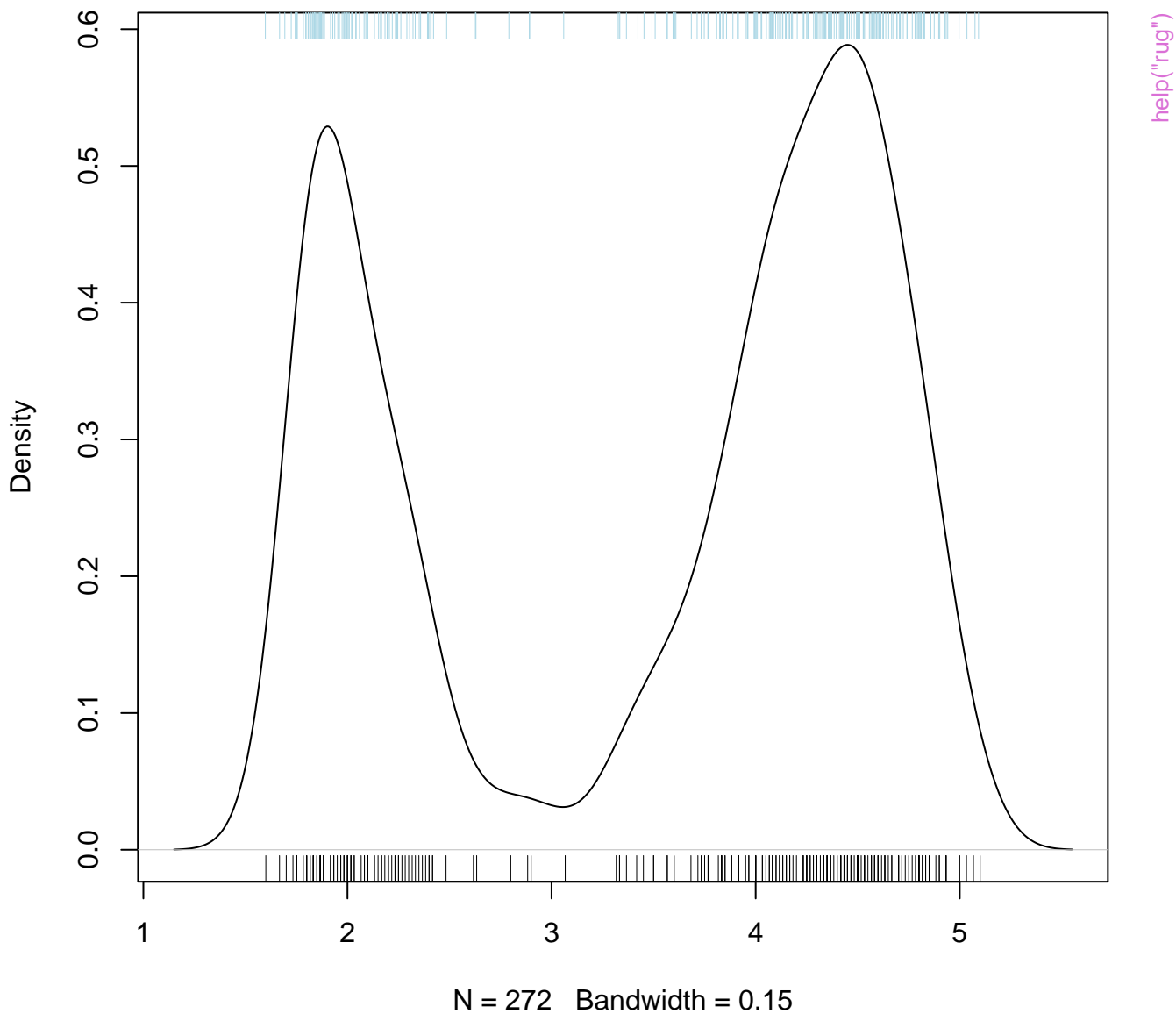
+ 2 x 6 rect(*, col = c(NA,0)) and col = c(NA,"m..blue")



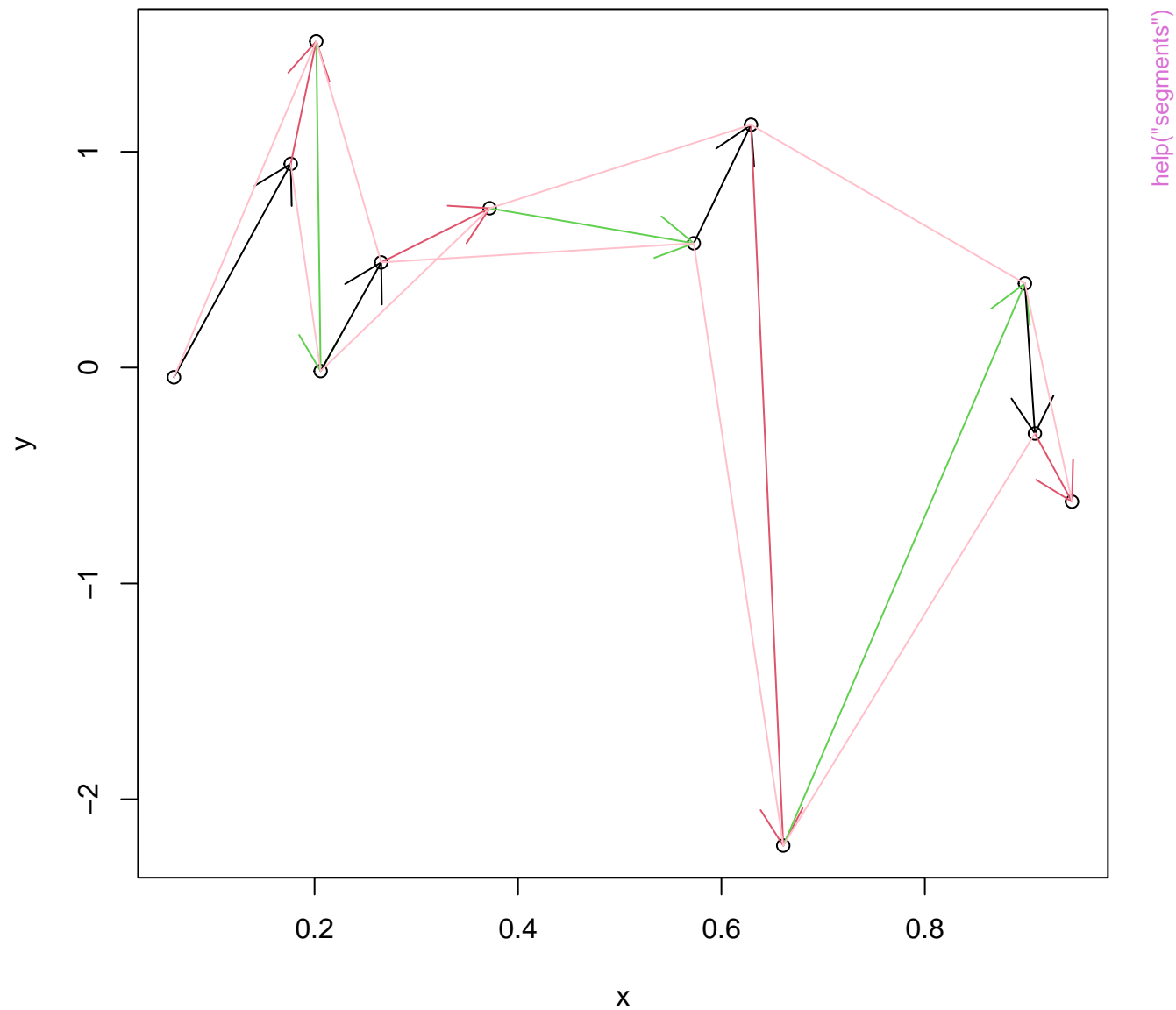


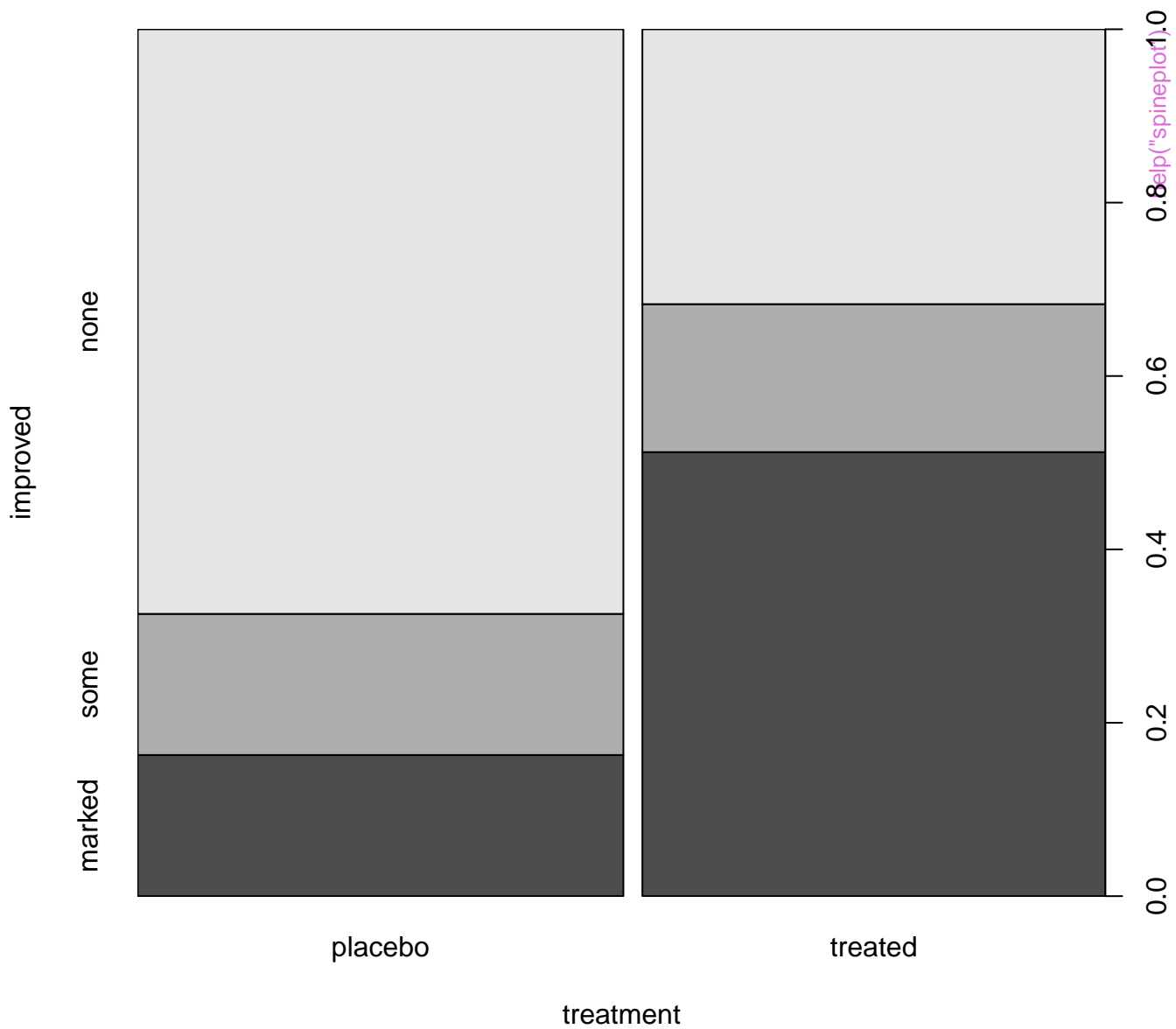
help("rect")

density(x = eruptions, bw = 0.15)

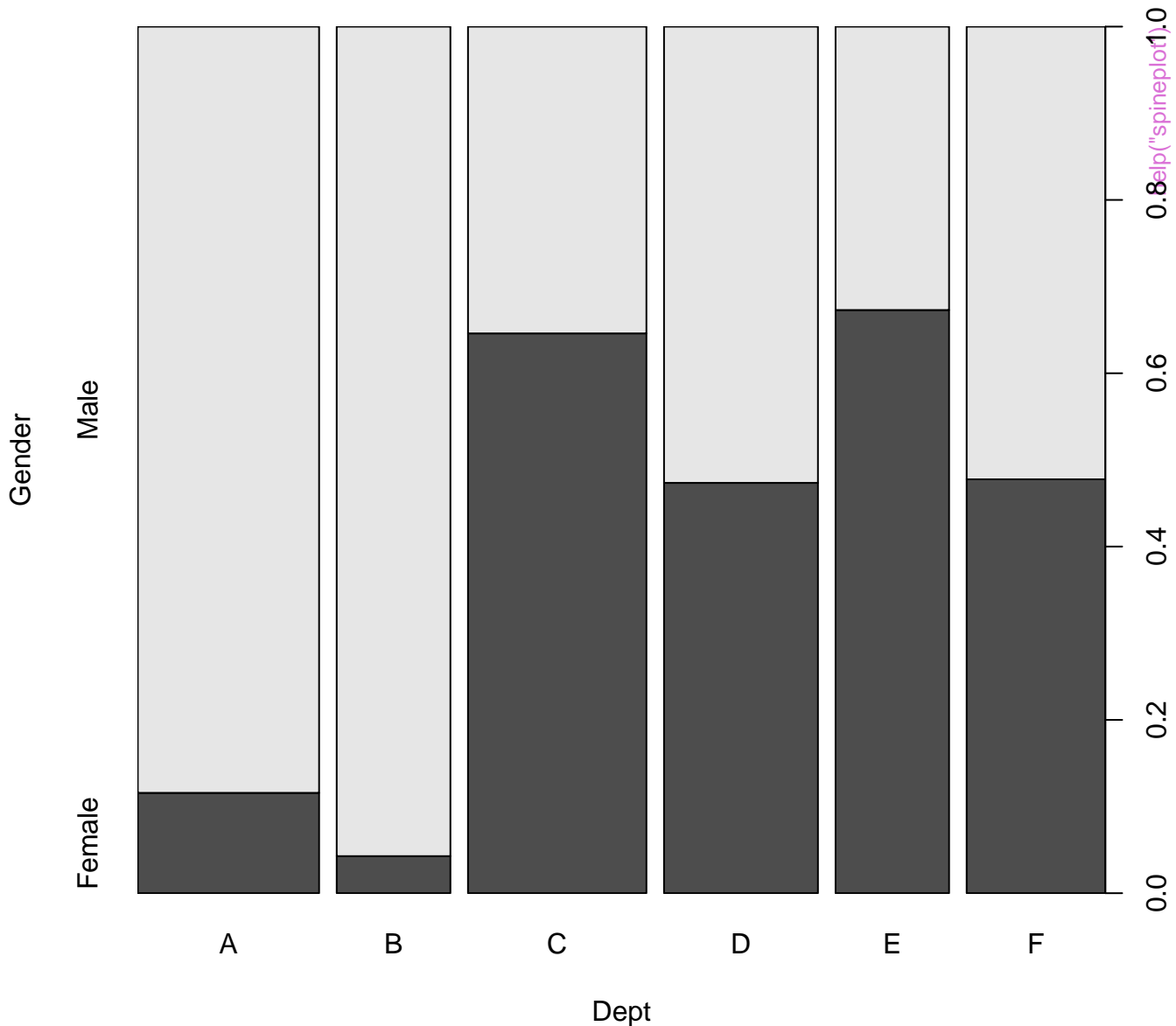


arrows(.) and segments(.)

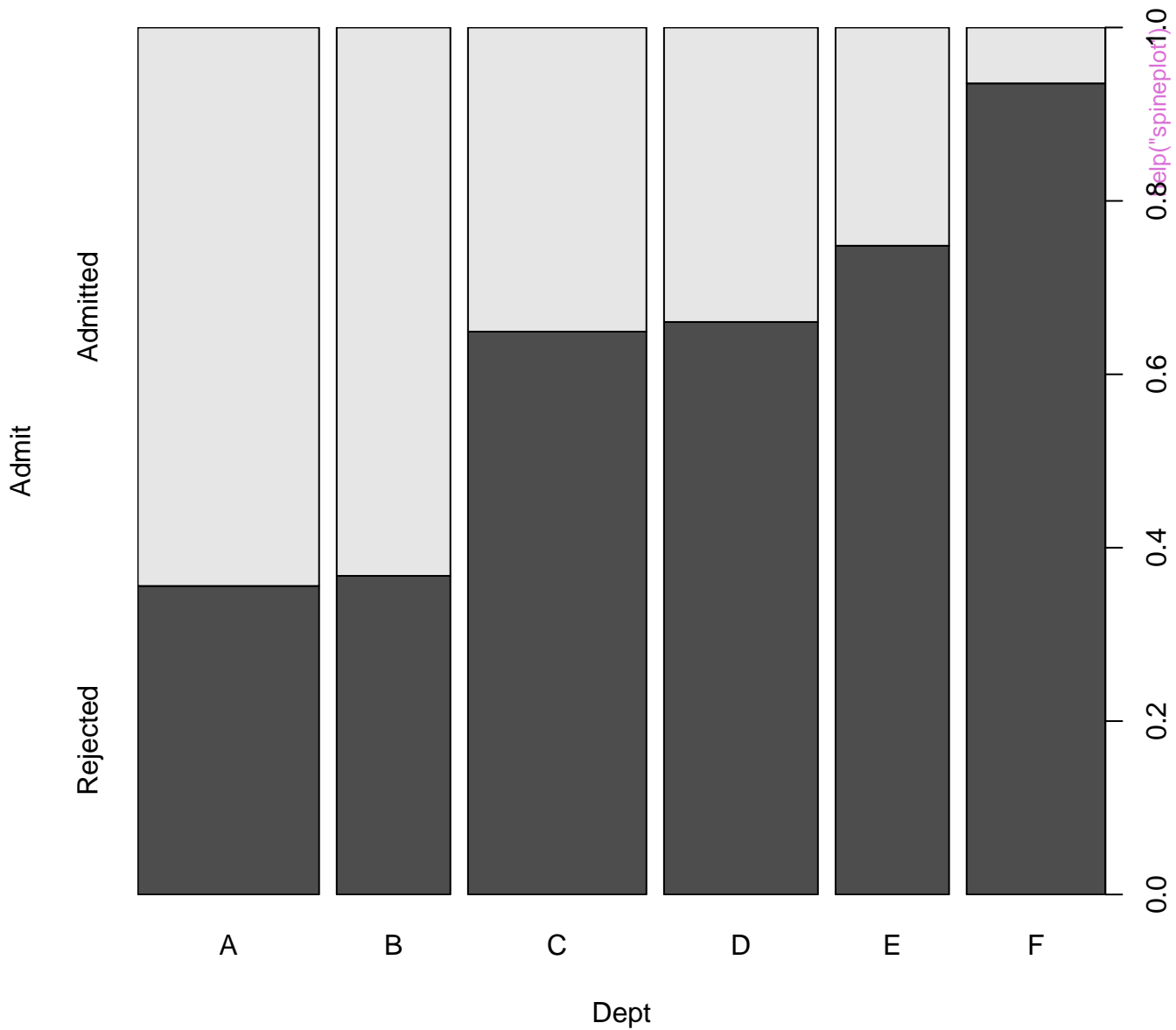


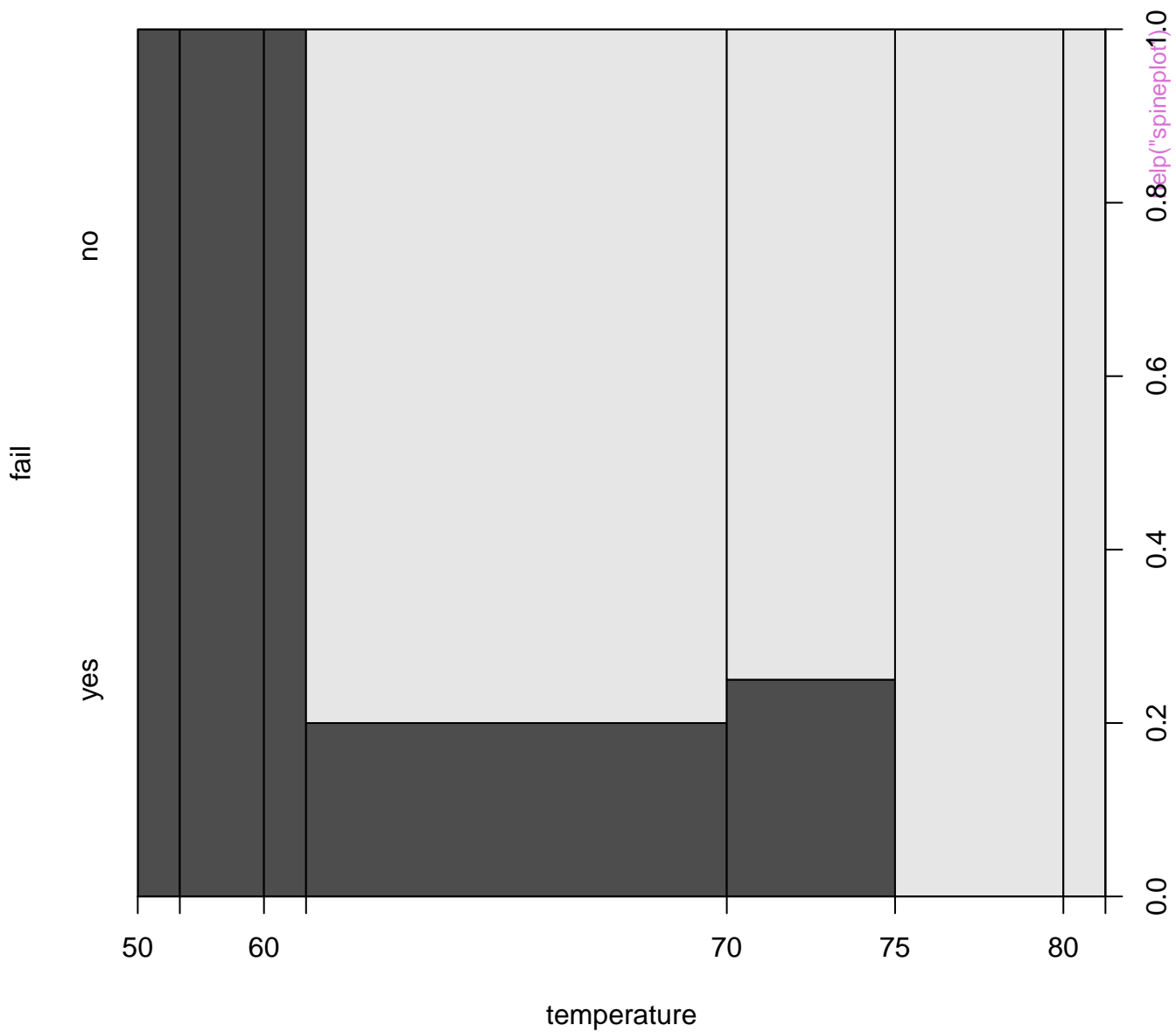


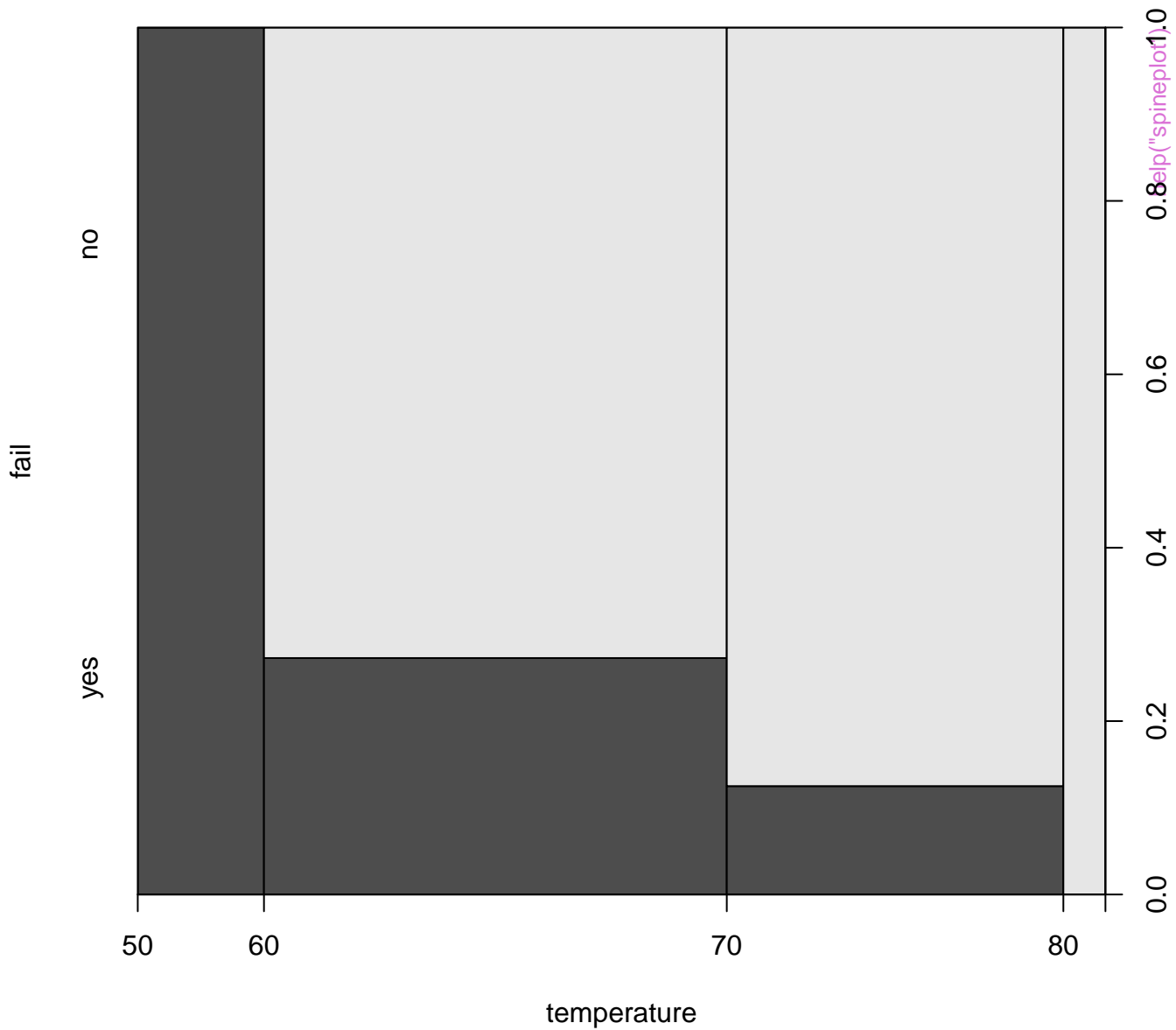
Applications at UCB

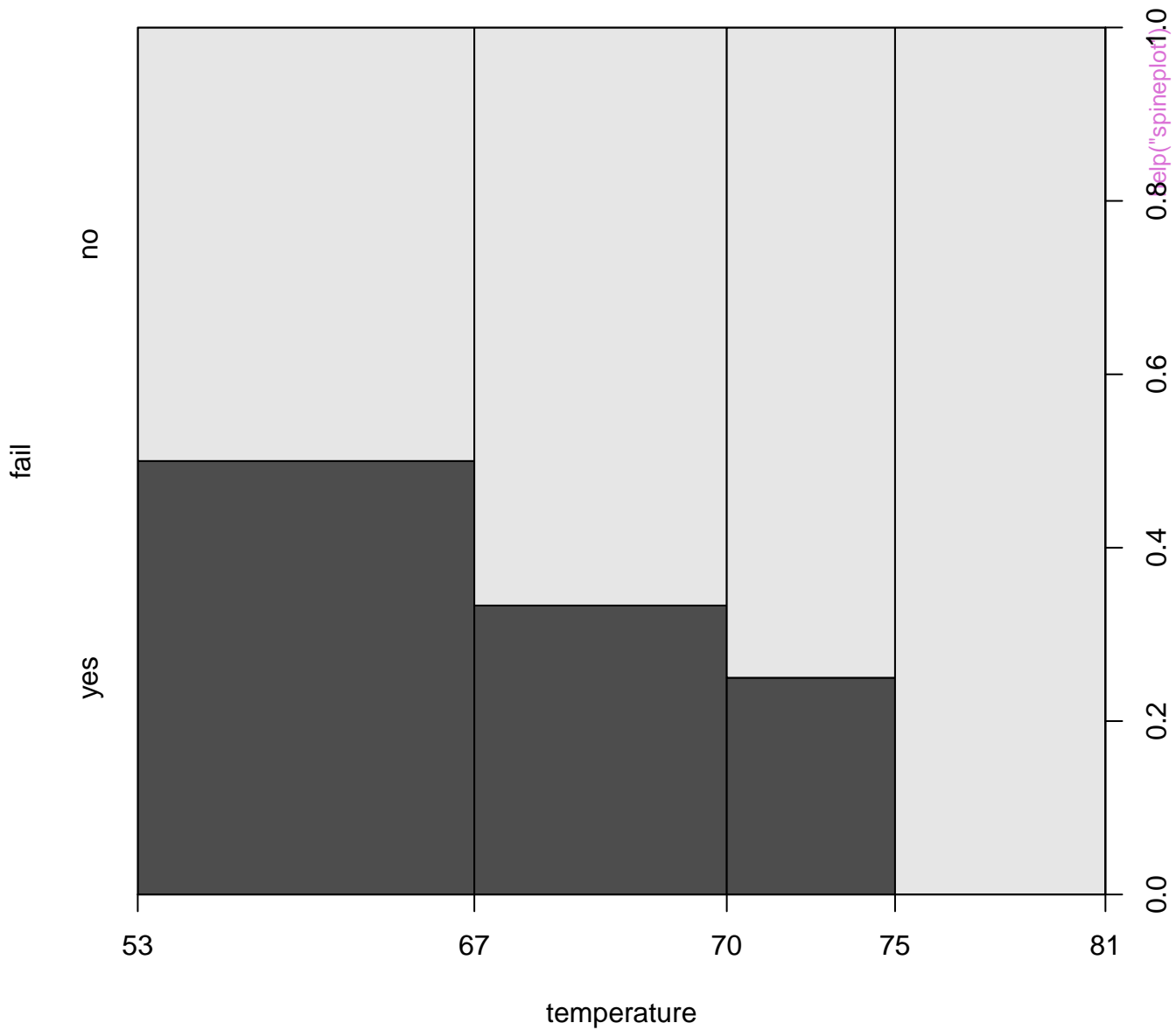


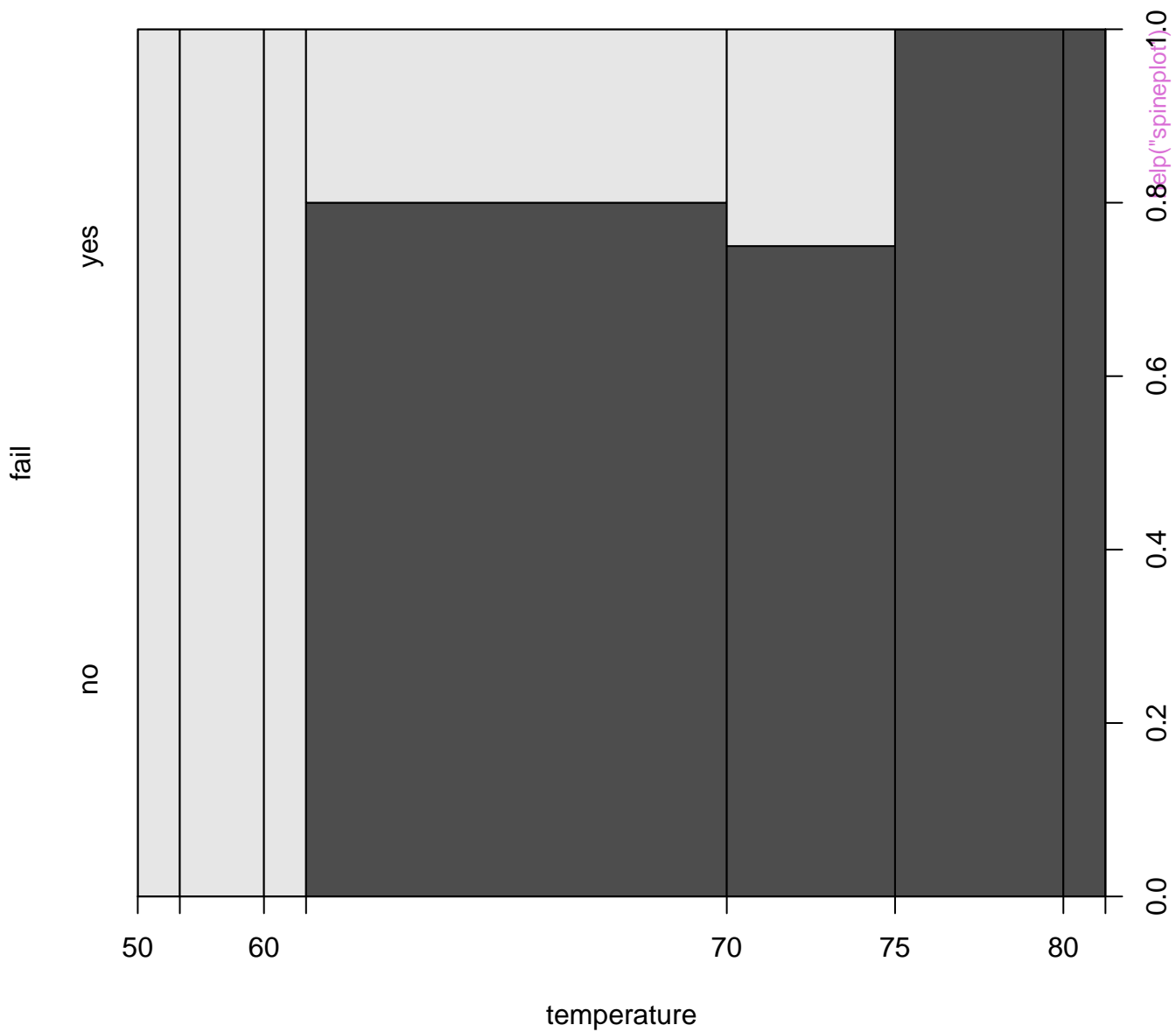
Admissions at UCB











Motor Trend Cars : stars(*, full = F)

help("stars")



Mazda RX4



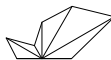
Mazda RX4 Wag



Datsun 710



Hornet 4 Drive



Hornet Sportabout



Valiant



Duster 360



Merc 240D



Merc 230



Merc 280



Merc 280C



Merc 450SE



Merc 450SL



Merc 450SLC



Cadillac Fleetwood



Lincoln Continental



Chrysler Imperial



Fiat 128



Honda Civic



Toyota Corolla



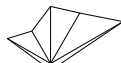
Toyota Corona



Dodge Challenger



AMC Javelin



Camaro Z28



Pontiac Firebird



Fiat X1-9



Porsche 914-2



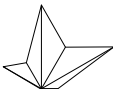
Lotus Europa



Ford Pantera L



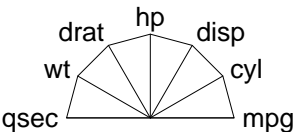
Ferrari Dino



Maserati Bora



Volvo 142E



Motor Trend Cars : full stars()

help("stars")



Mazda RX4



Mazda RX4 Wag



Datsun 710



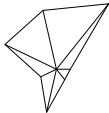
Hornet 4 Drive



Hornet Sportabout



Valiant



Duster 360



Merc 240D



Merc 230



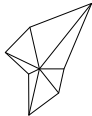
Merc 280



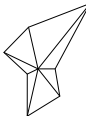
Merc 280C



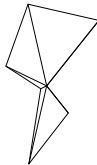
Merc 450SE



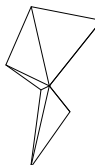
Merc 450SL



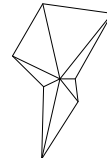
Merc 450SLC



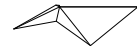
Cadillac Fleetwood



Lincoln Continental



Chrysler Imperial



Fiat 128



Honda Civic



Toyota Corolla



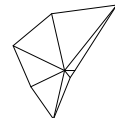
Toyota Corona



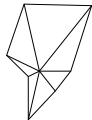
Dodge Challenger



AMC Javelin



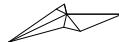
Camaro Z28



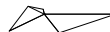
Pontiac Firebird



Fiat X1-9



Porsche 914-2



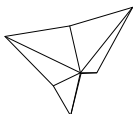
Lotus Europa



Ford Pantera L



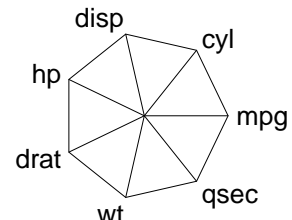
Ferrari Dino



Maserati Bora



Volvo 142E



Motor Trend Cars

disp

cyl

hp

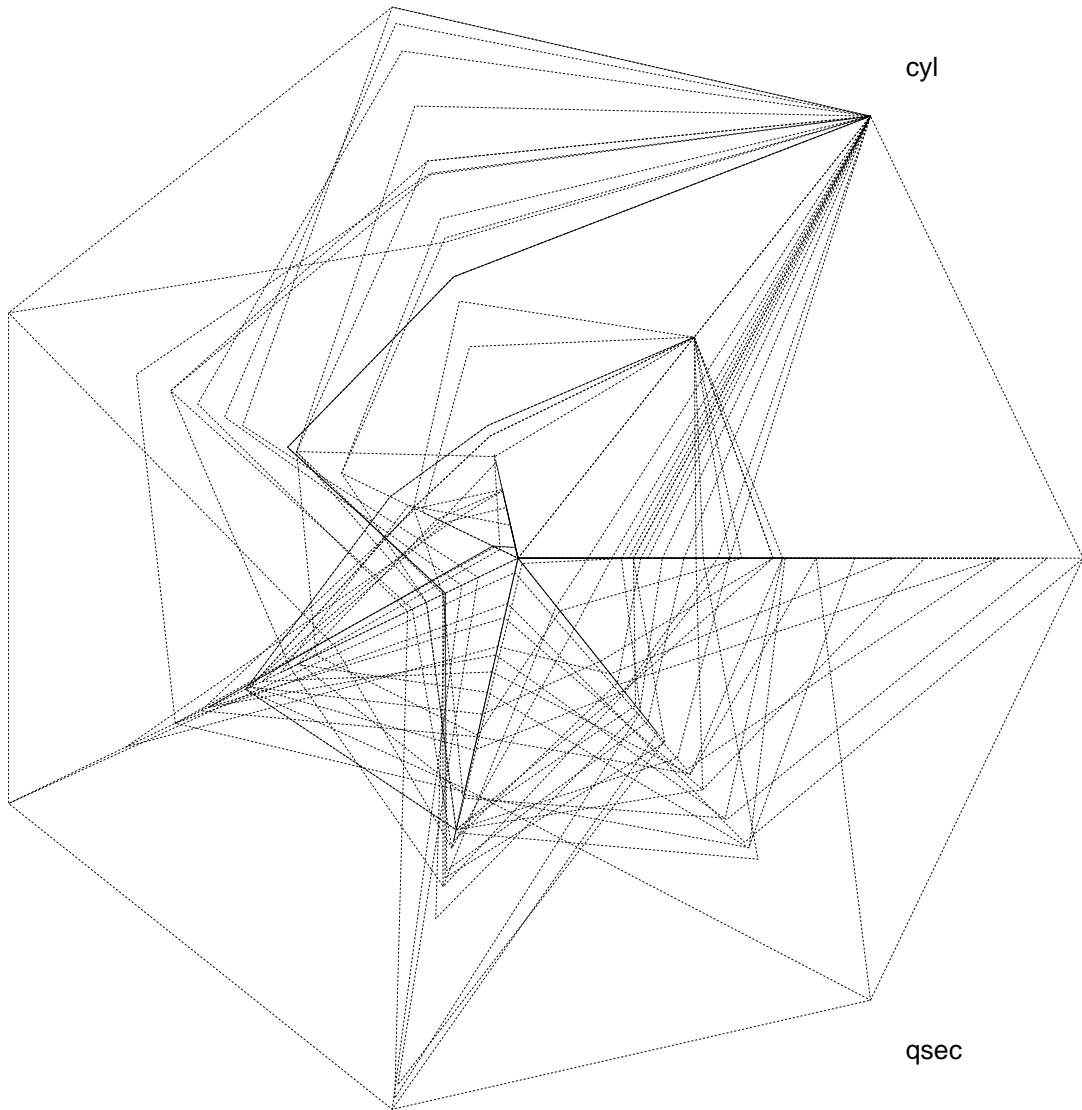
help("stars")

mpg

drat

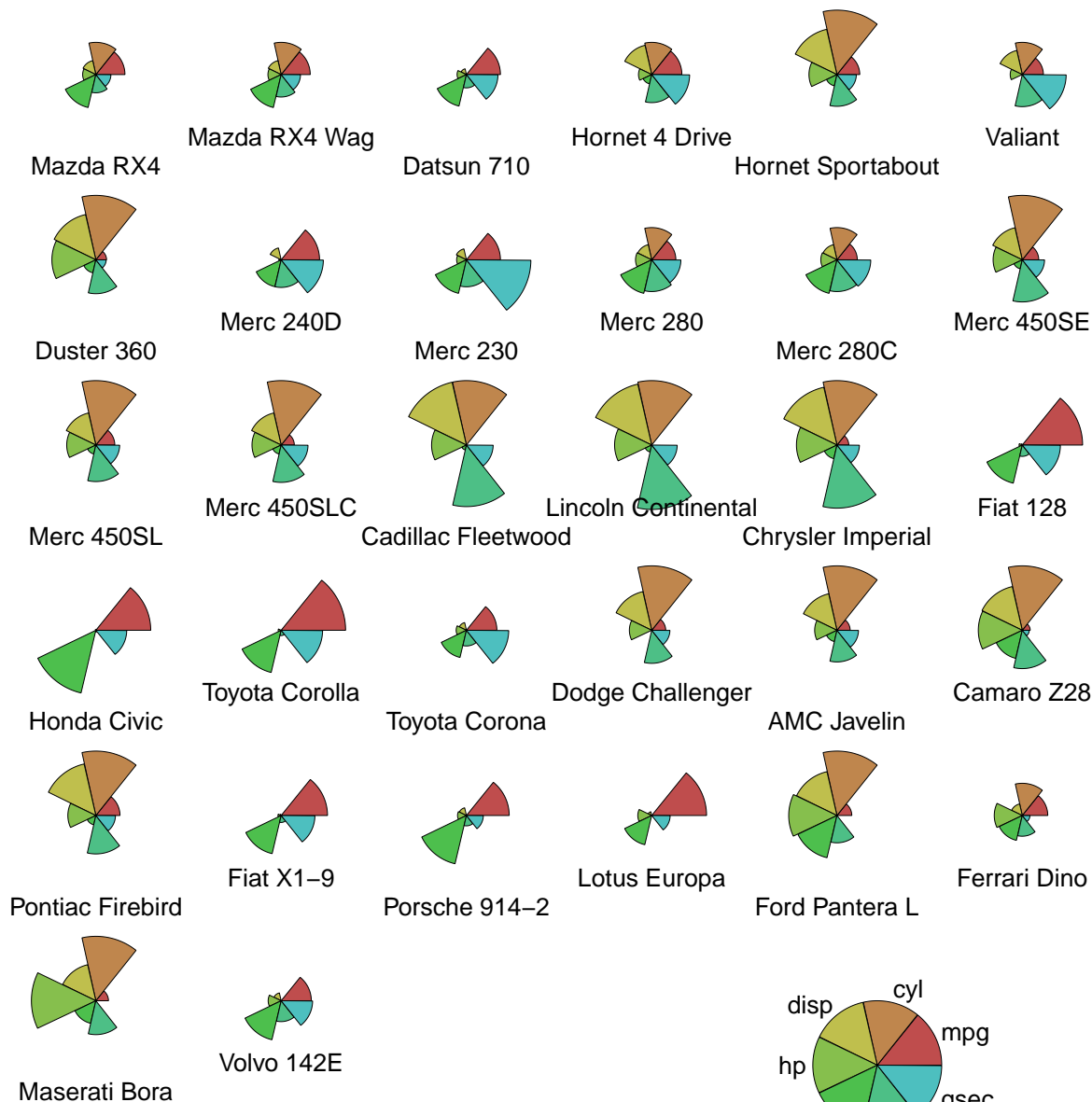
qsec

wt

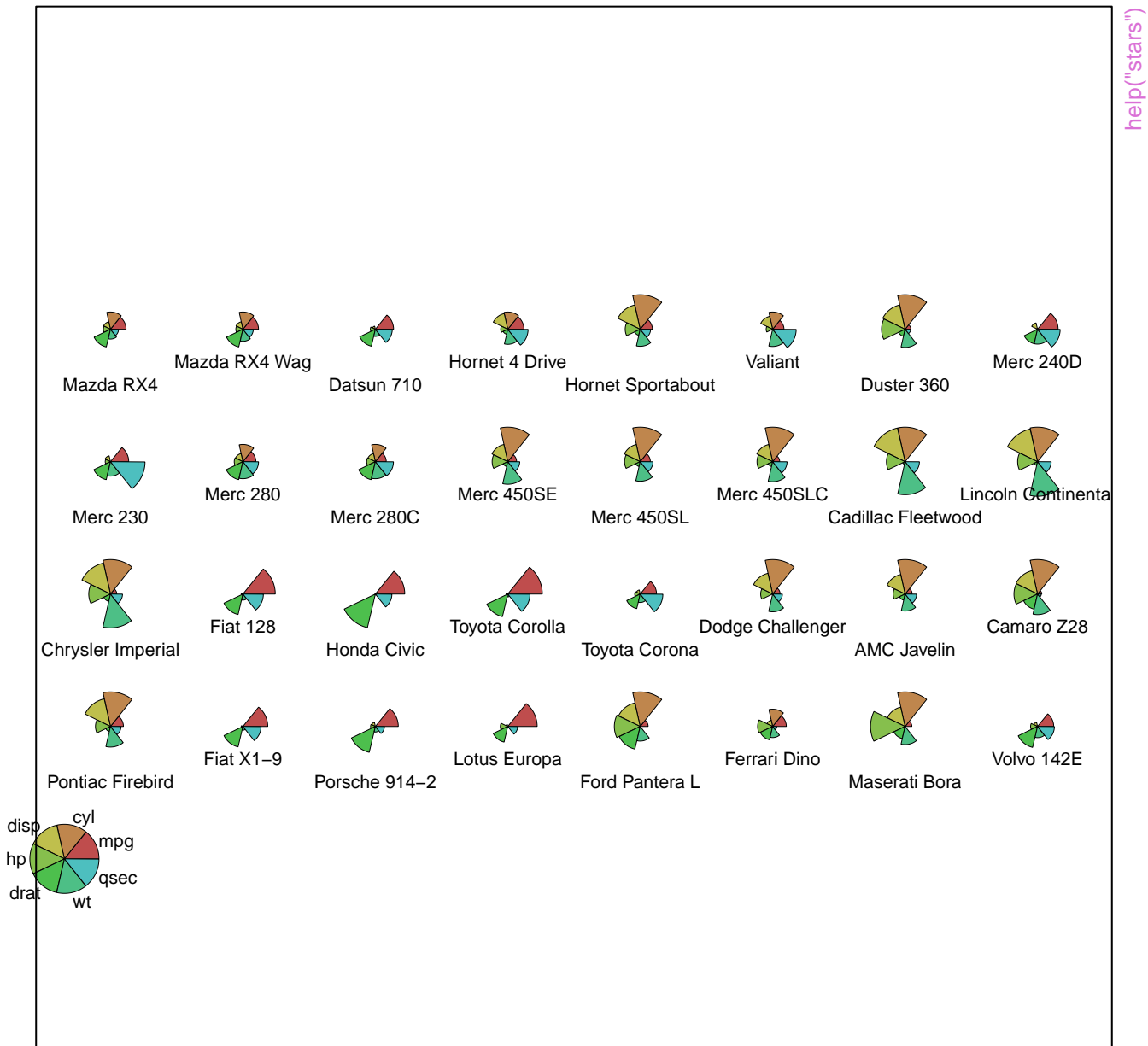


Motor Trend Cars

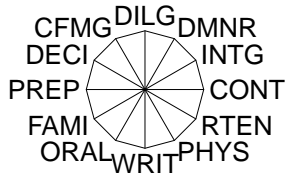
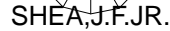
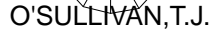
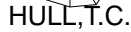
help("stars")

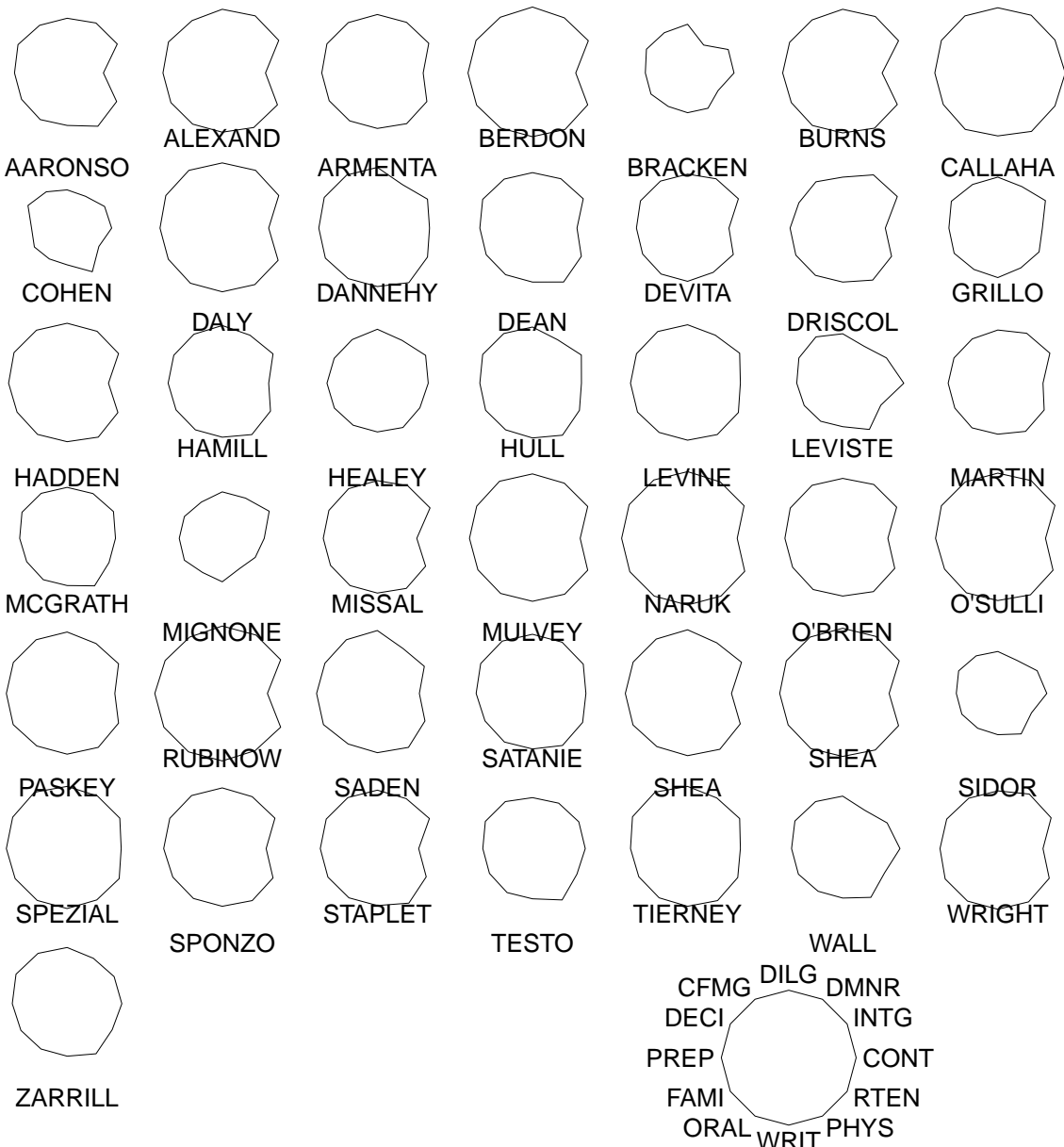


Motor Trend Cars



```
help("stars")
```





Judge not ...

help("stars")

AARONSO

ALEXAND

ARMENTA

BERDON

BRACKEN

BURNS

CALLAHA

COHEN

DALY

DANNEHY

DEAN

DEVITA

DRISCOL

GRILLO

HADDEN

HAMILL

HEALEY

HULL

LEVINE

LEVISTE

MARTIN

MCGRATH

MIGNONE

MISSAL

MULVEY

NARUK

O'BRIEN

O'SULLI

PASKEY

RUBINOW

SADEN

SATANIE

SHEA

SHEA

SIDOR

SPEZIAL

SPONZO

STAPLET

TESTO

TIERNEY

WALL

WRIGHT

ZARRILL

CFMG

DILG

DMNR

DECI

INTG

PREP

CONT

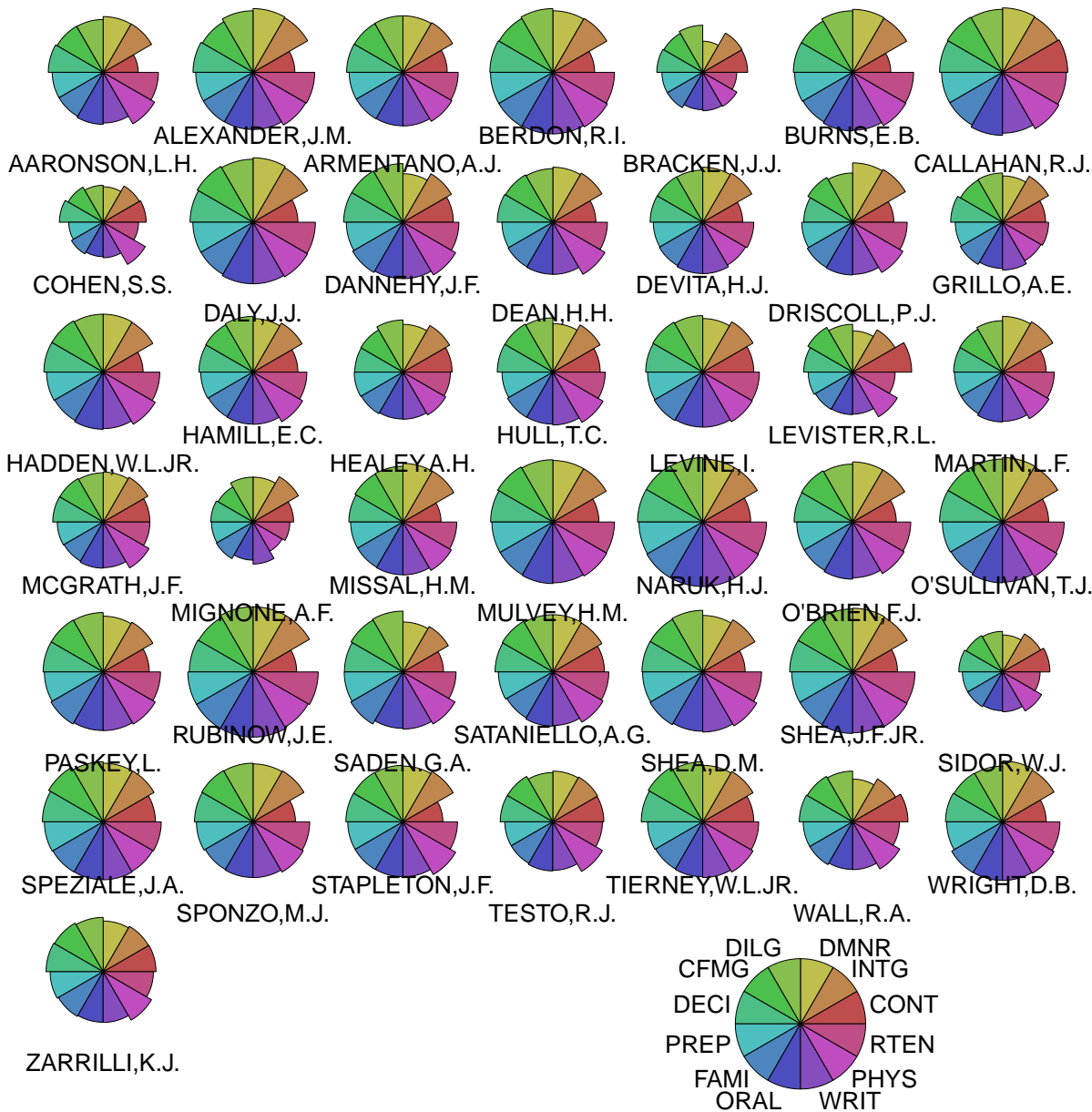
FAMI

RTEN

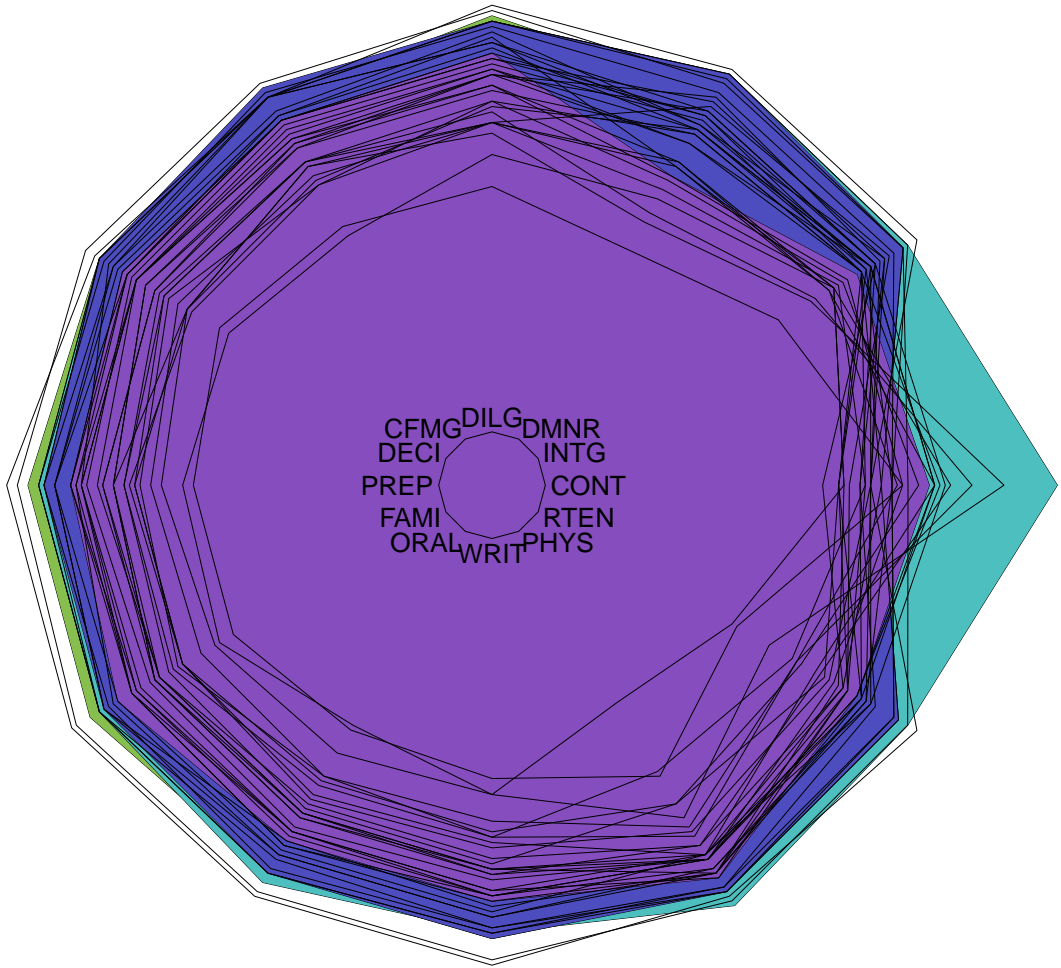
ORAL

WRIT

PHYS

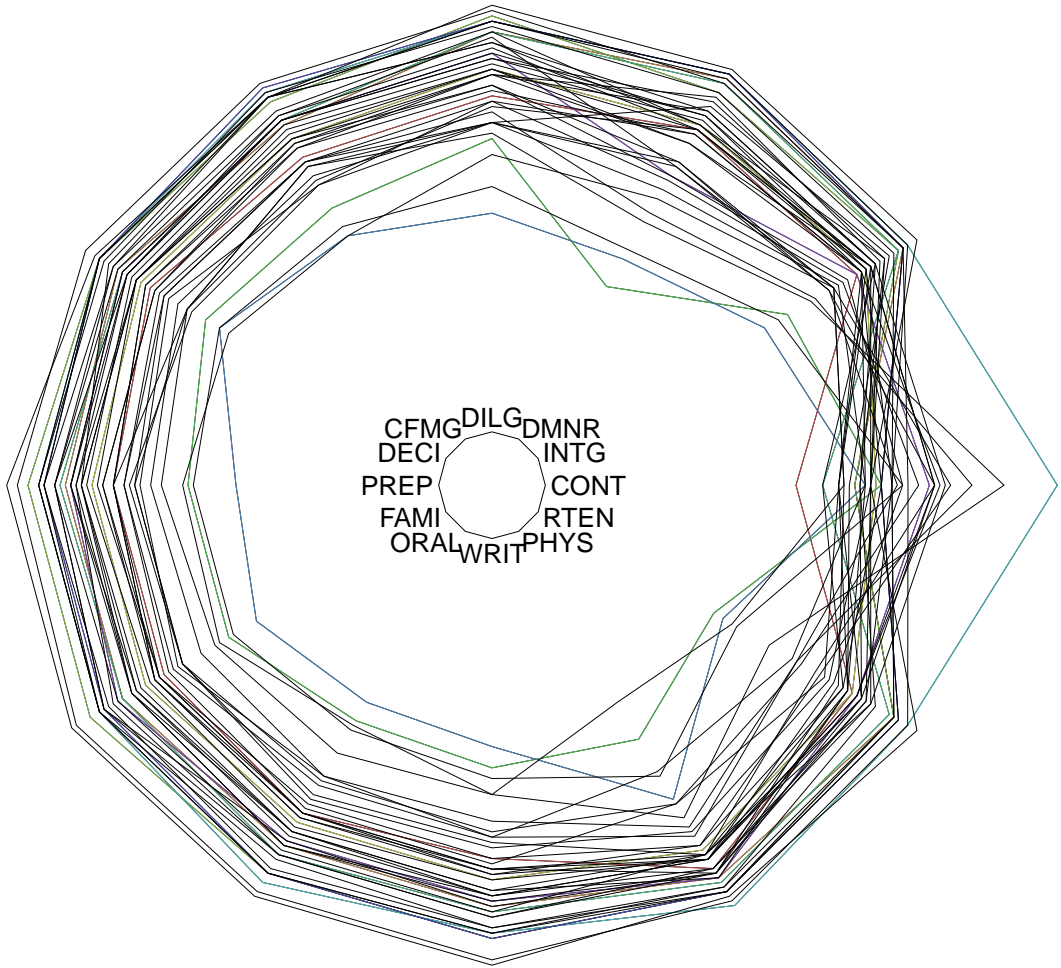


US Judges rated



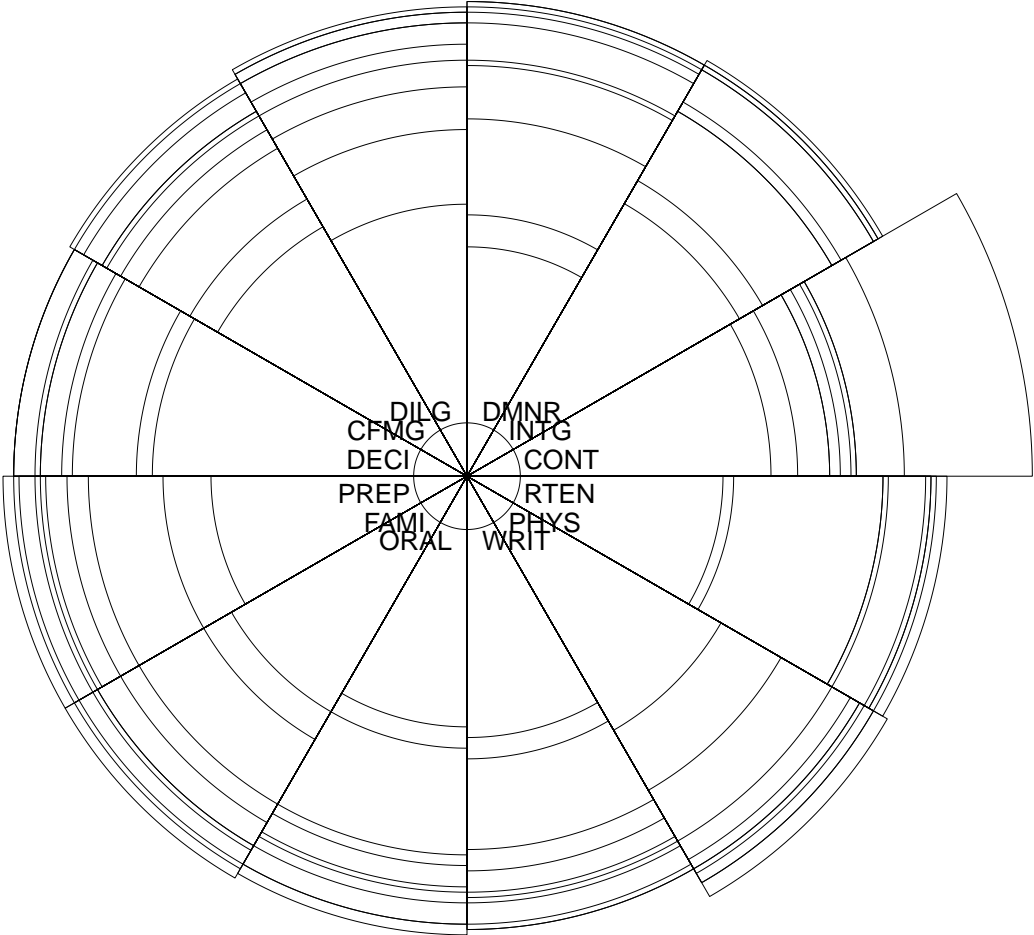
```
help("stars")
```

US Judges rated

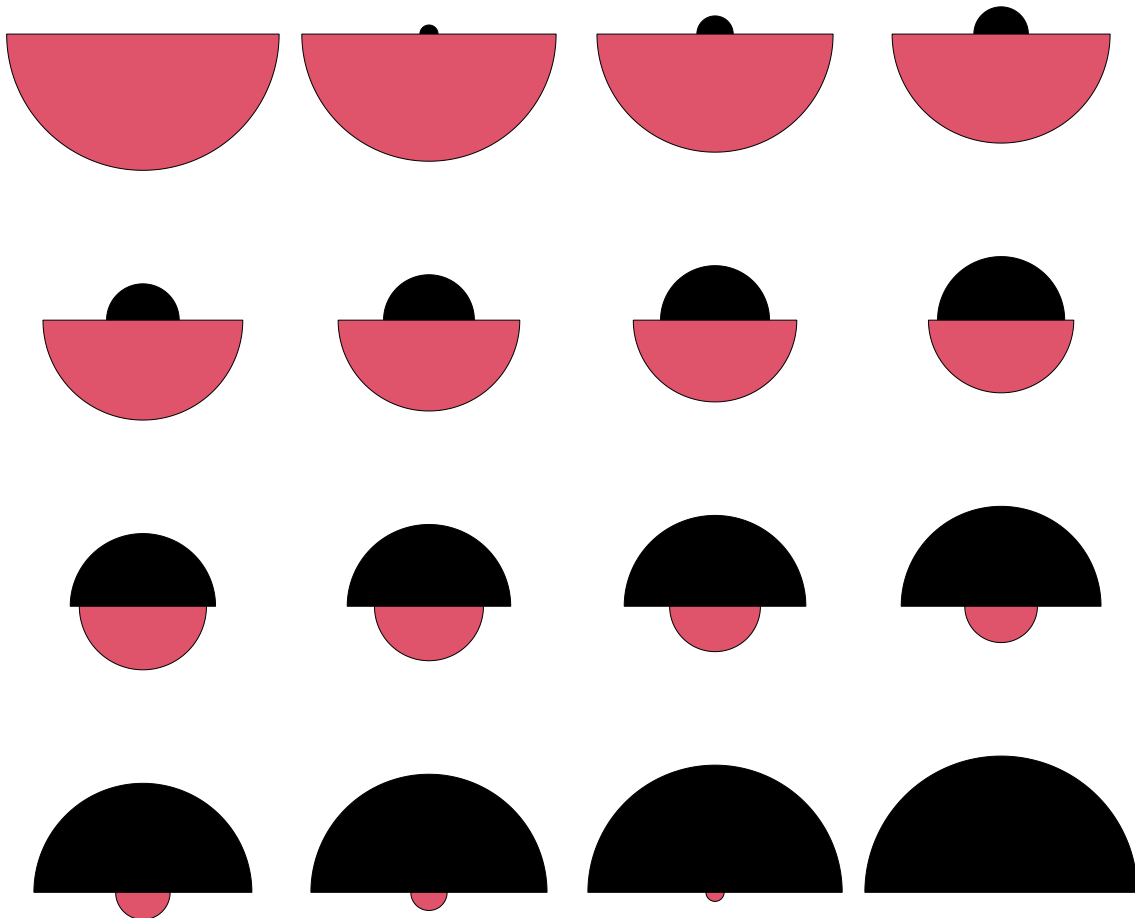


```
help("stars")
```

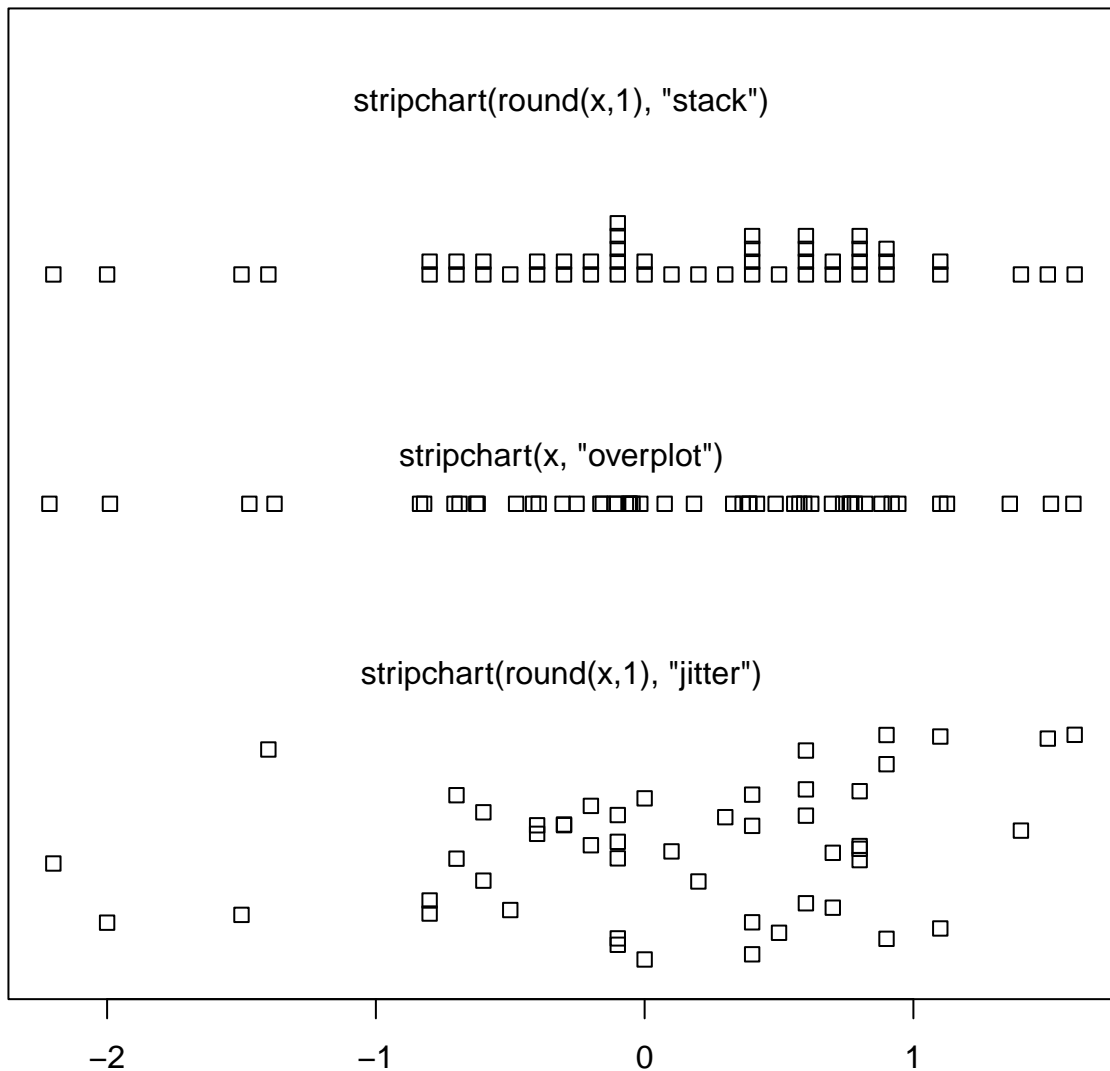
US Judges 1-10



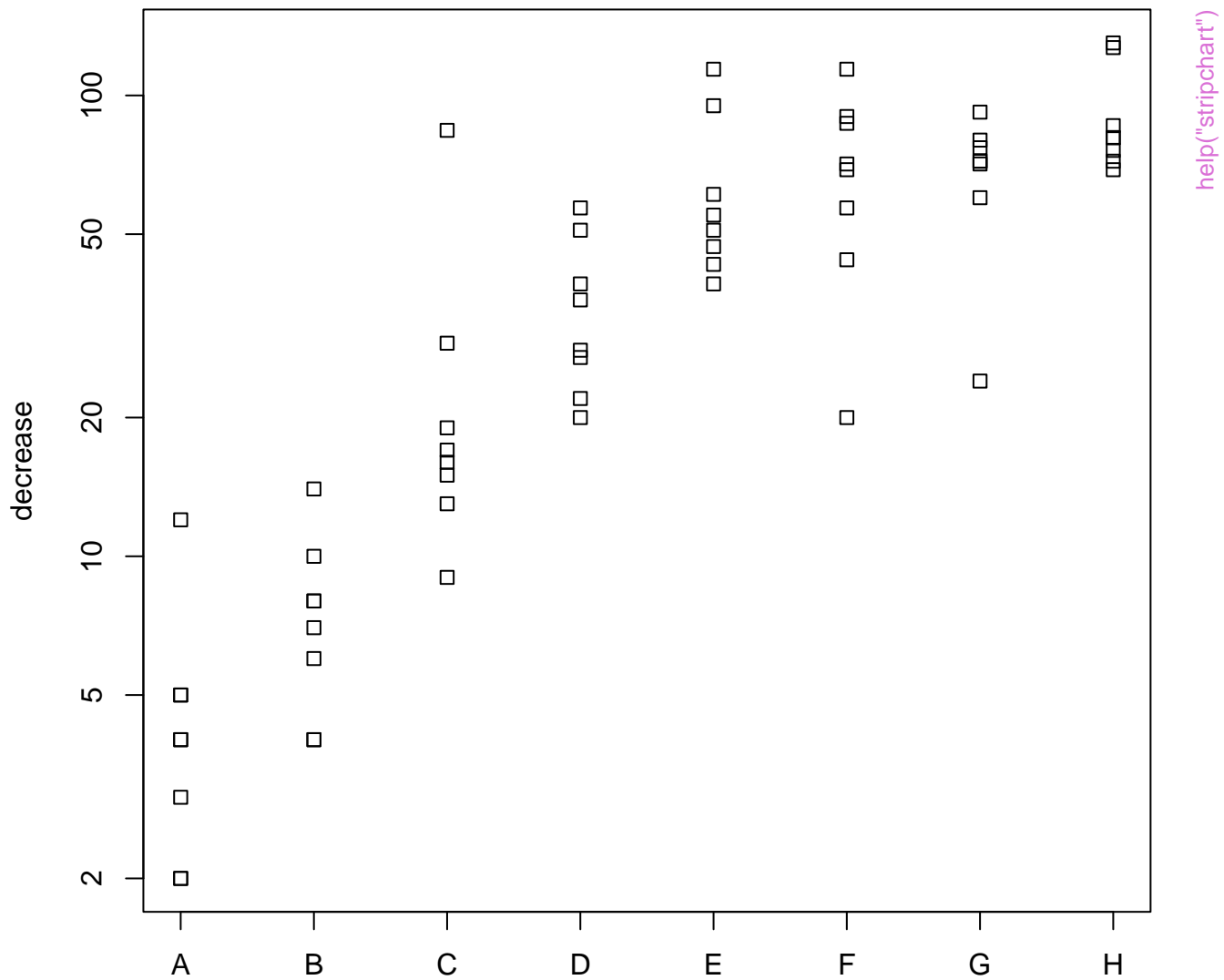
A Joke -- do **not** use symbols on 2D data!



help("stars")

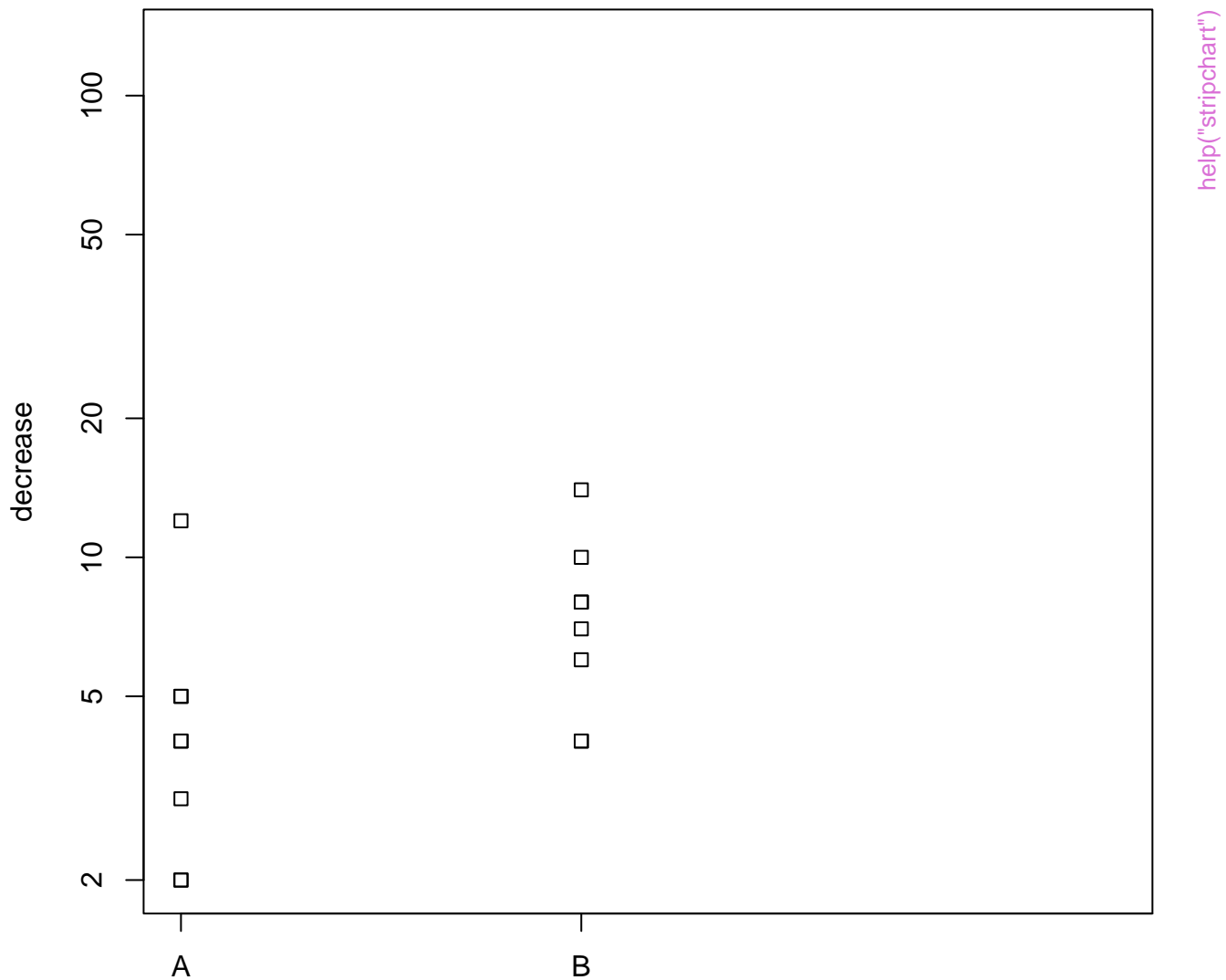


stripchart(OrchardSprays)

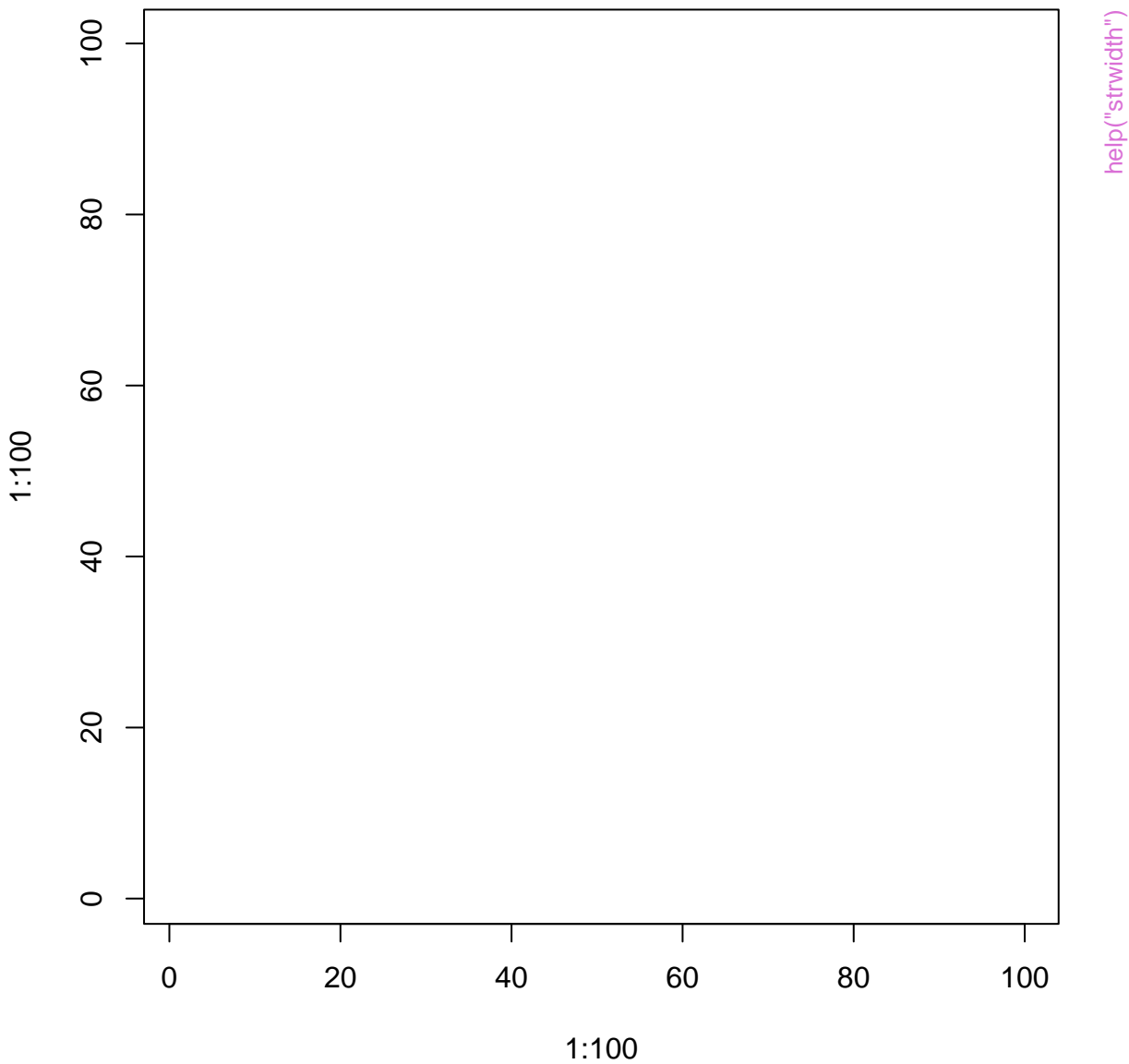


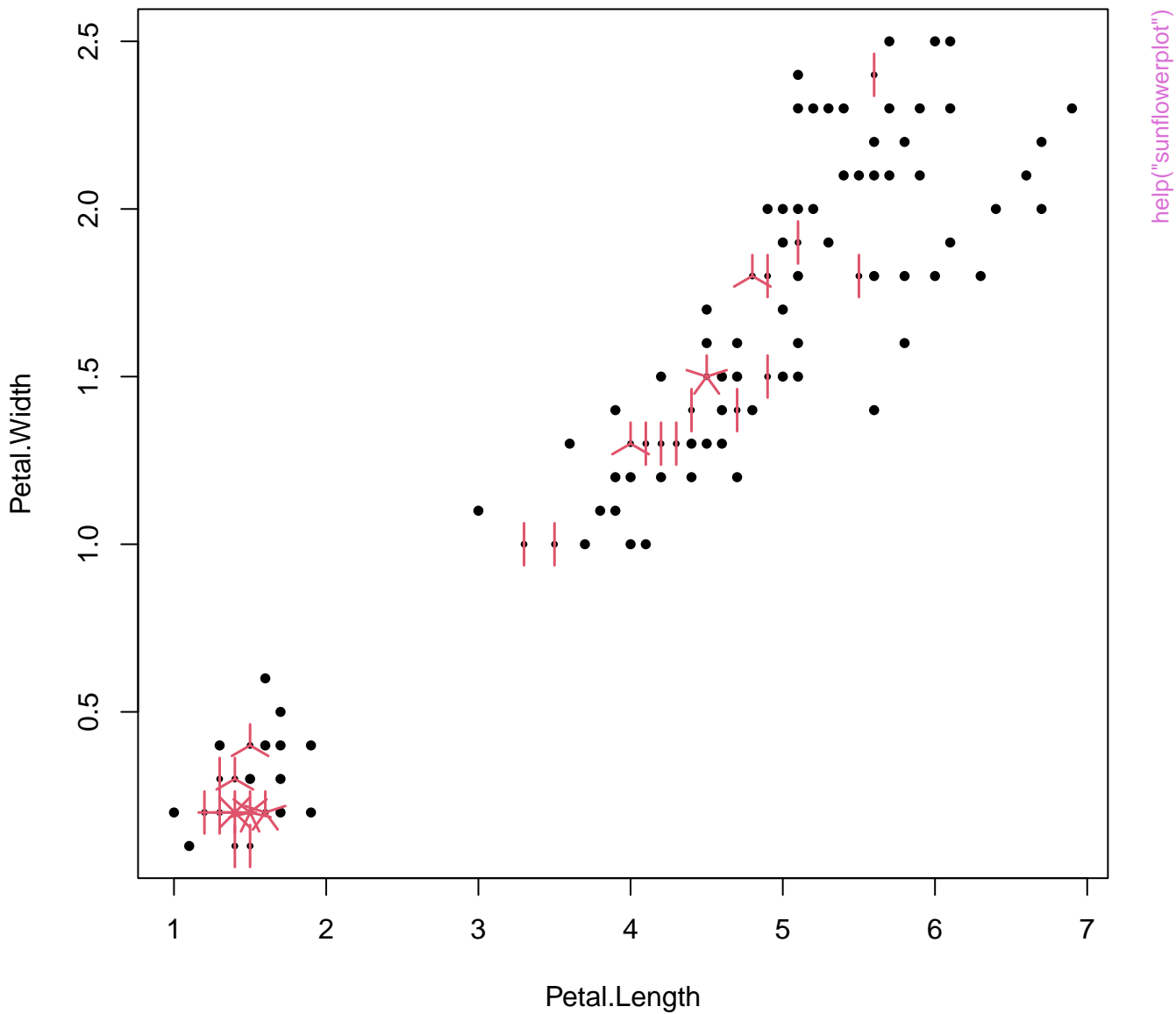
help("stripchart")

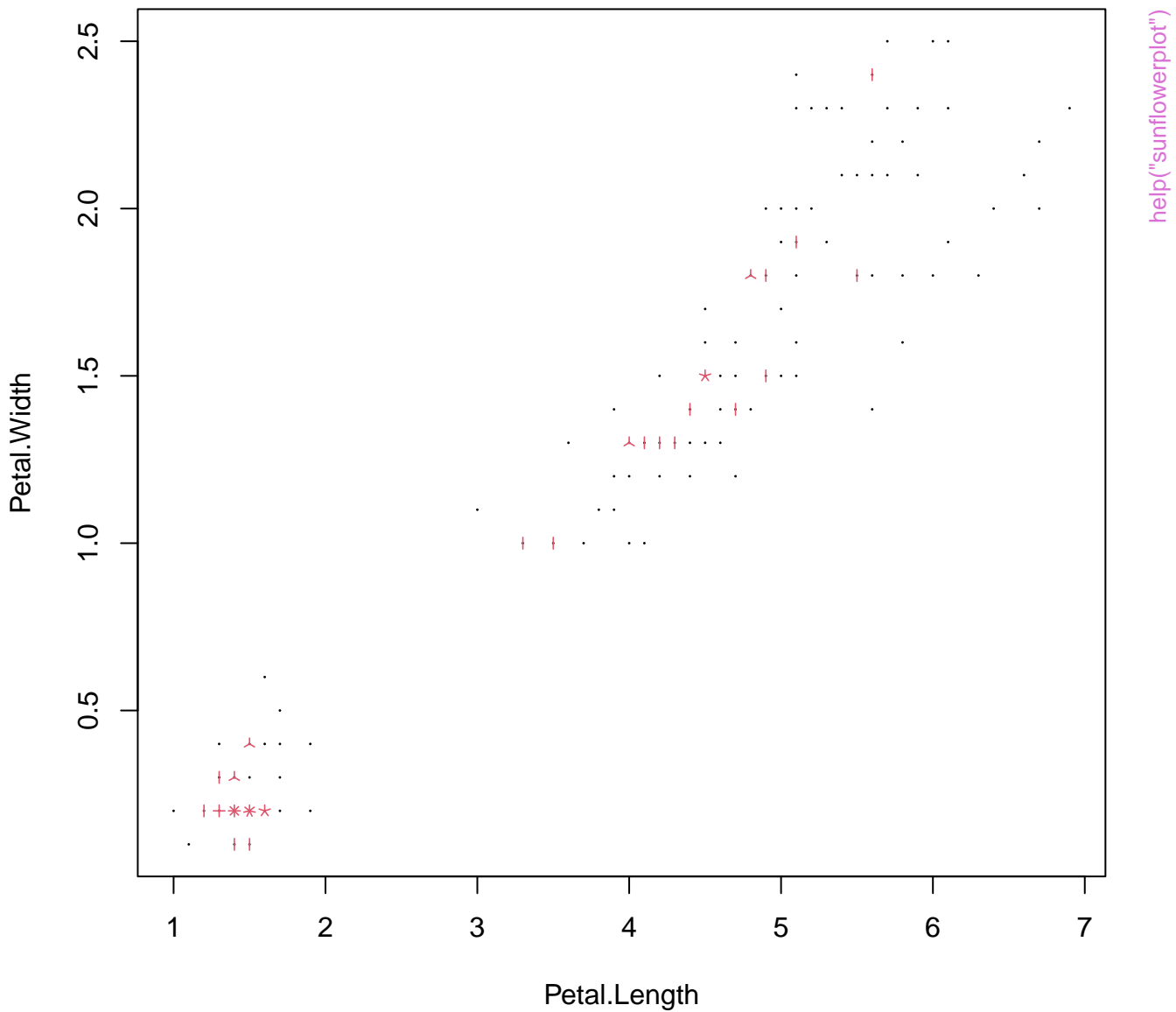
stripchart(OrchardSprays)

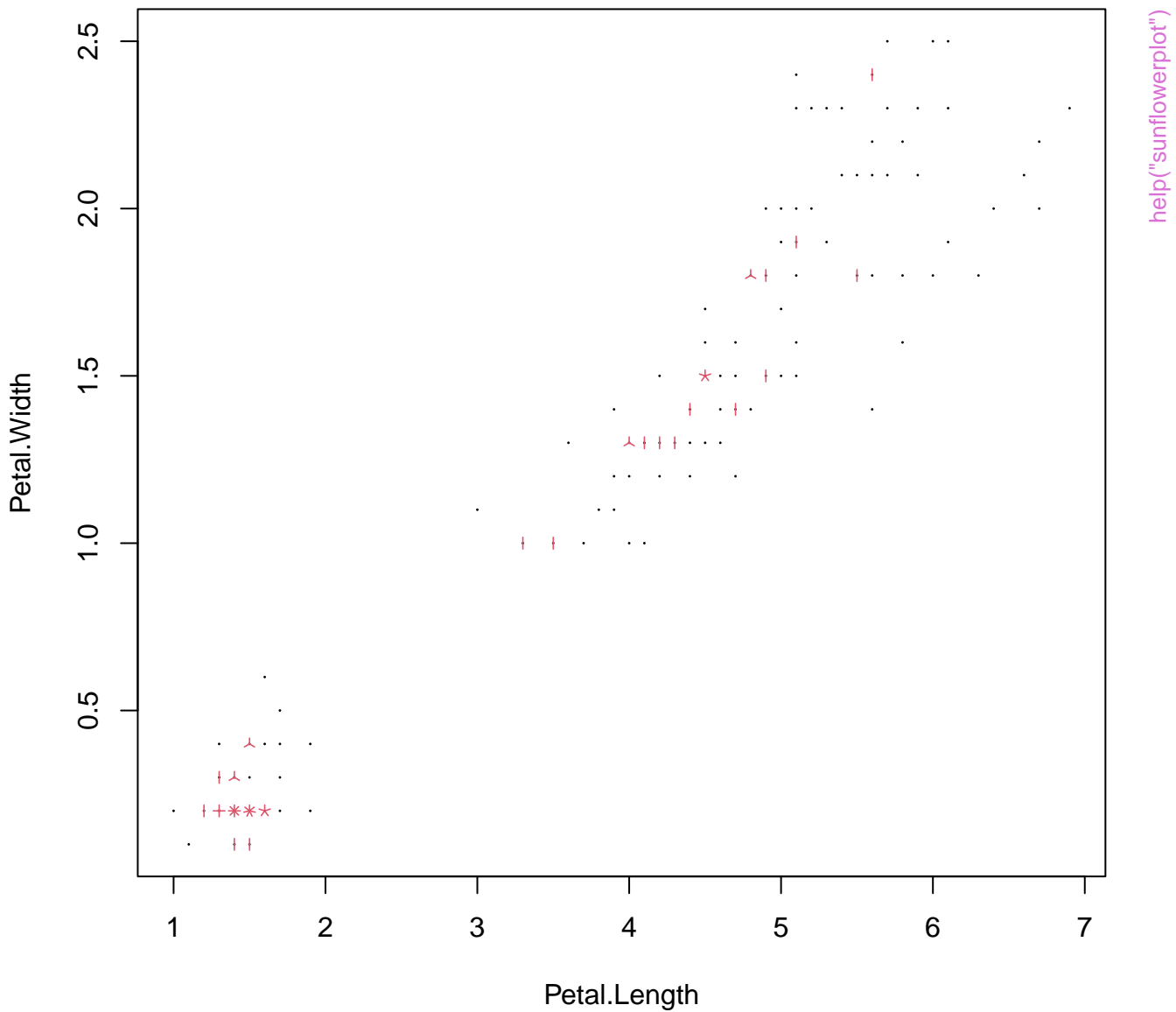


help("stripchart")

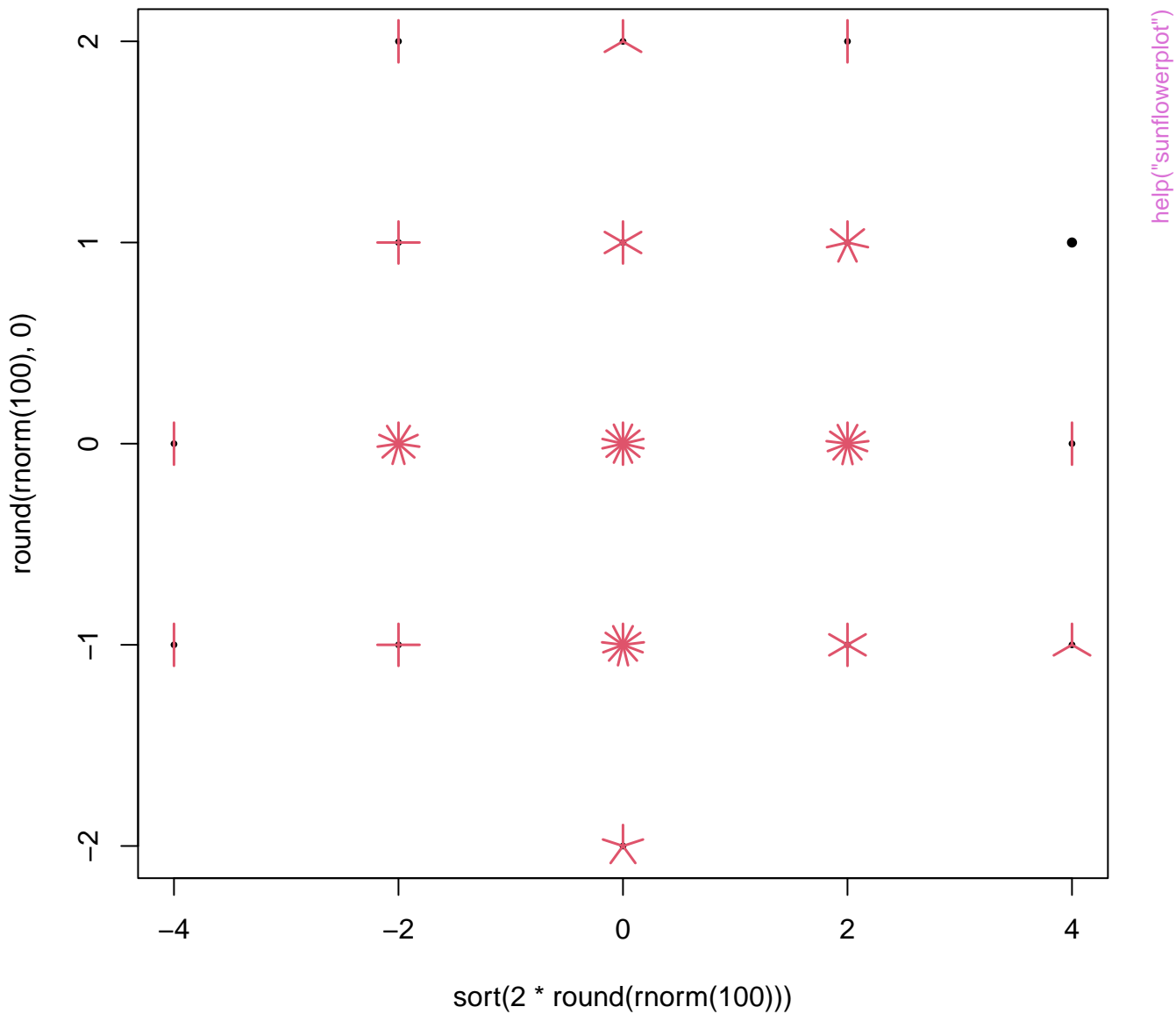




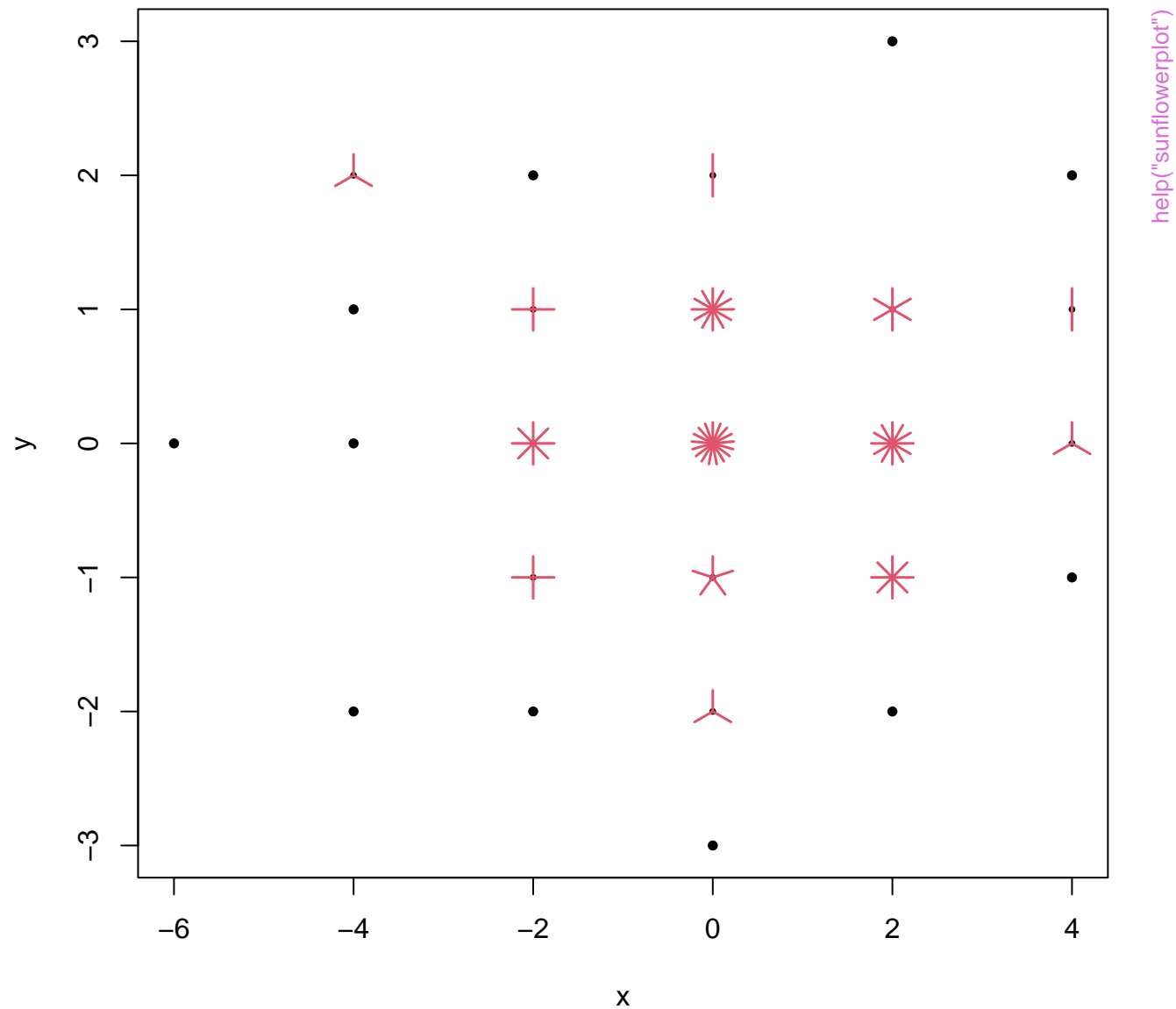




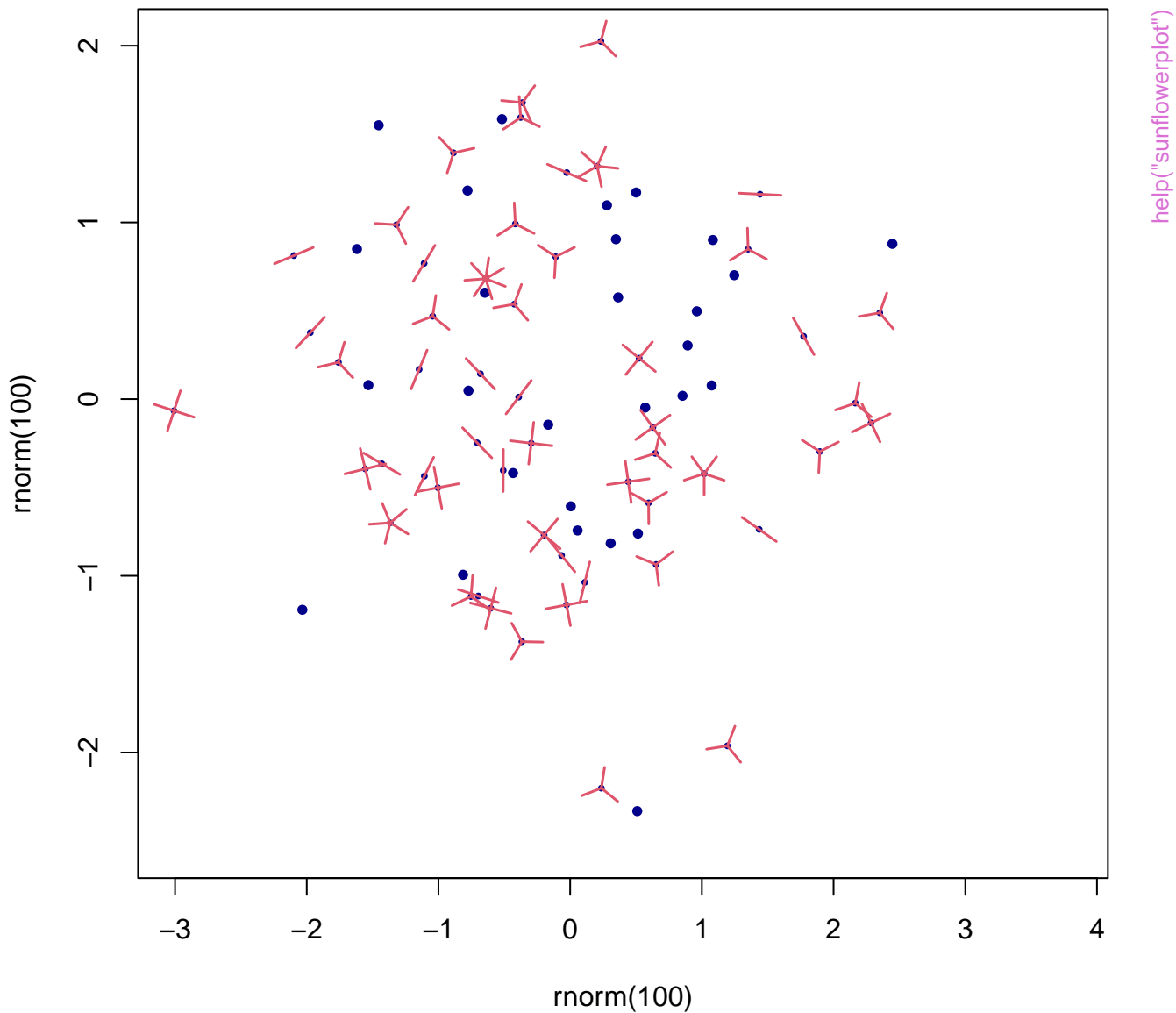
Sunflower Plot of Rounded $N(0,1)$

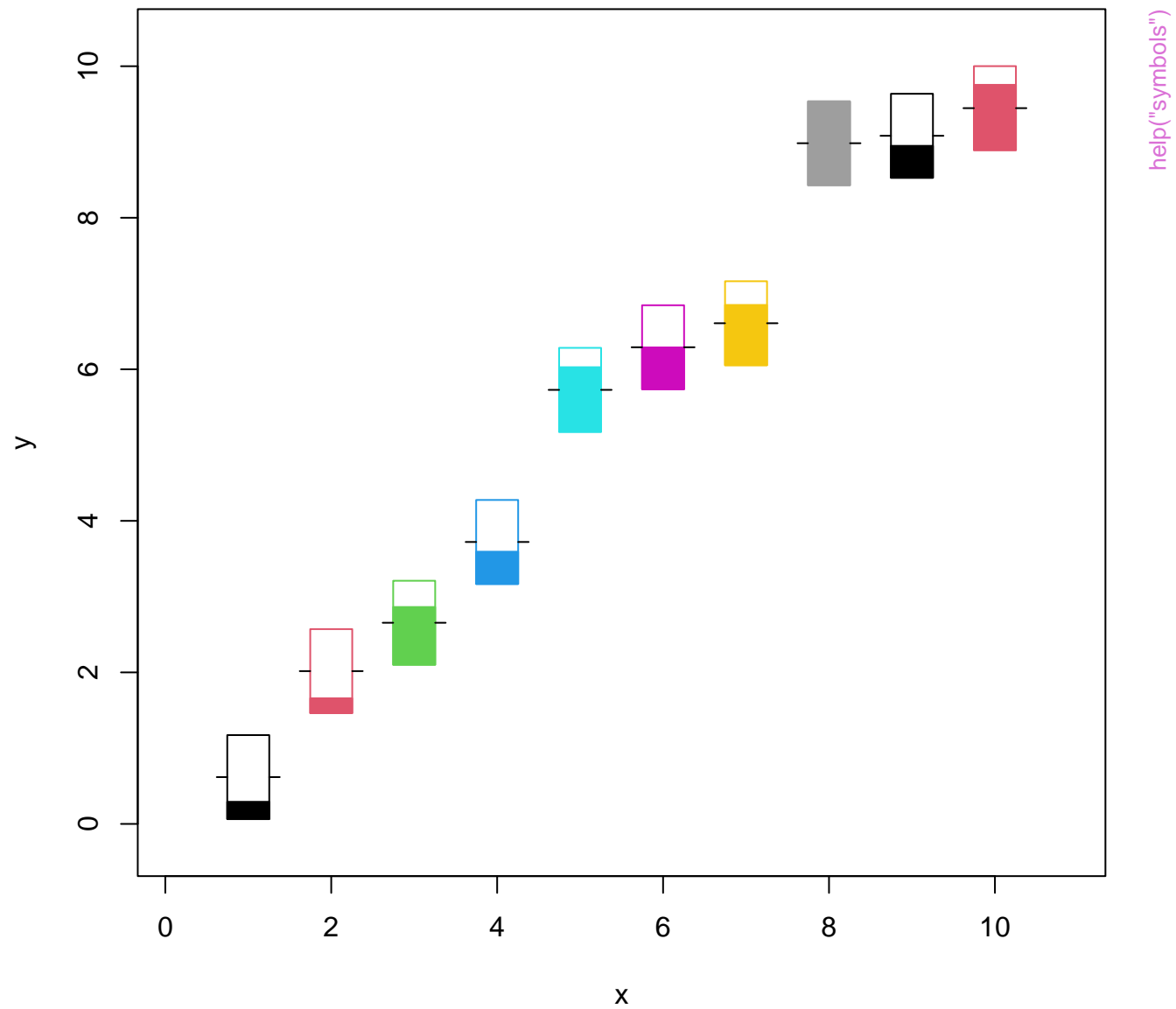


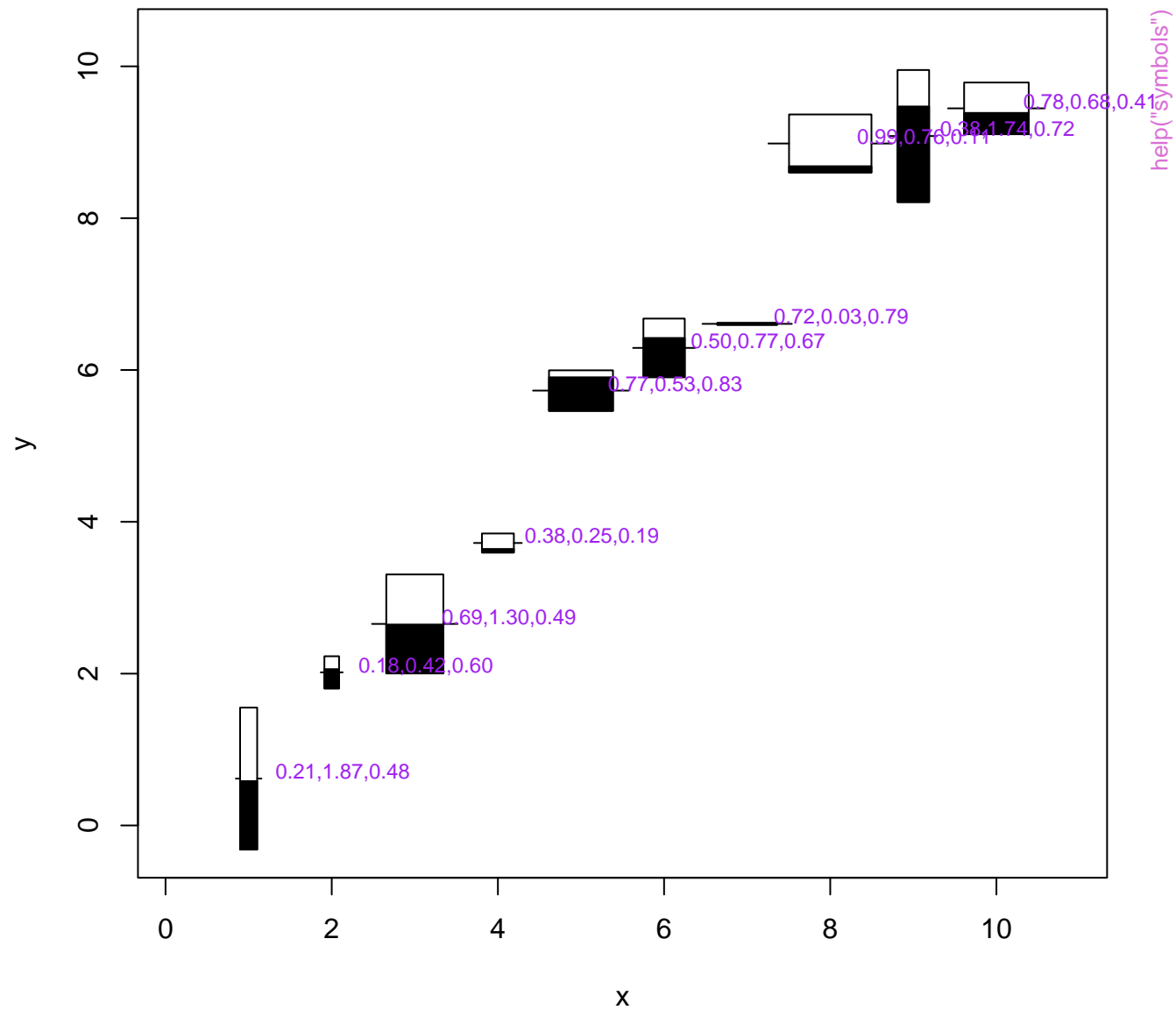
2nd Sunflower Plot of Rounded $N(0,1)$



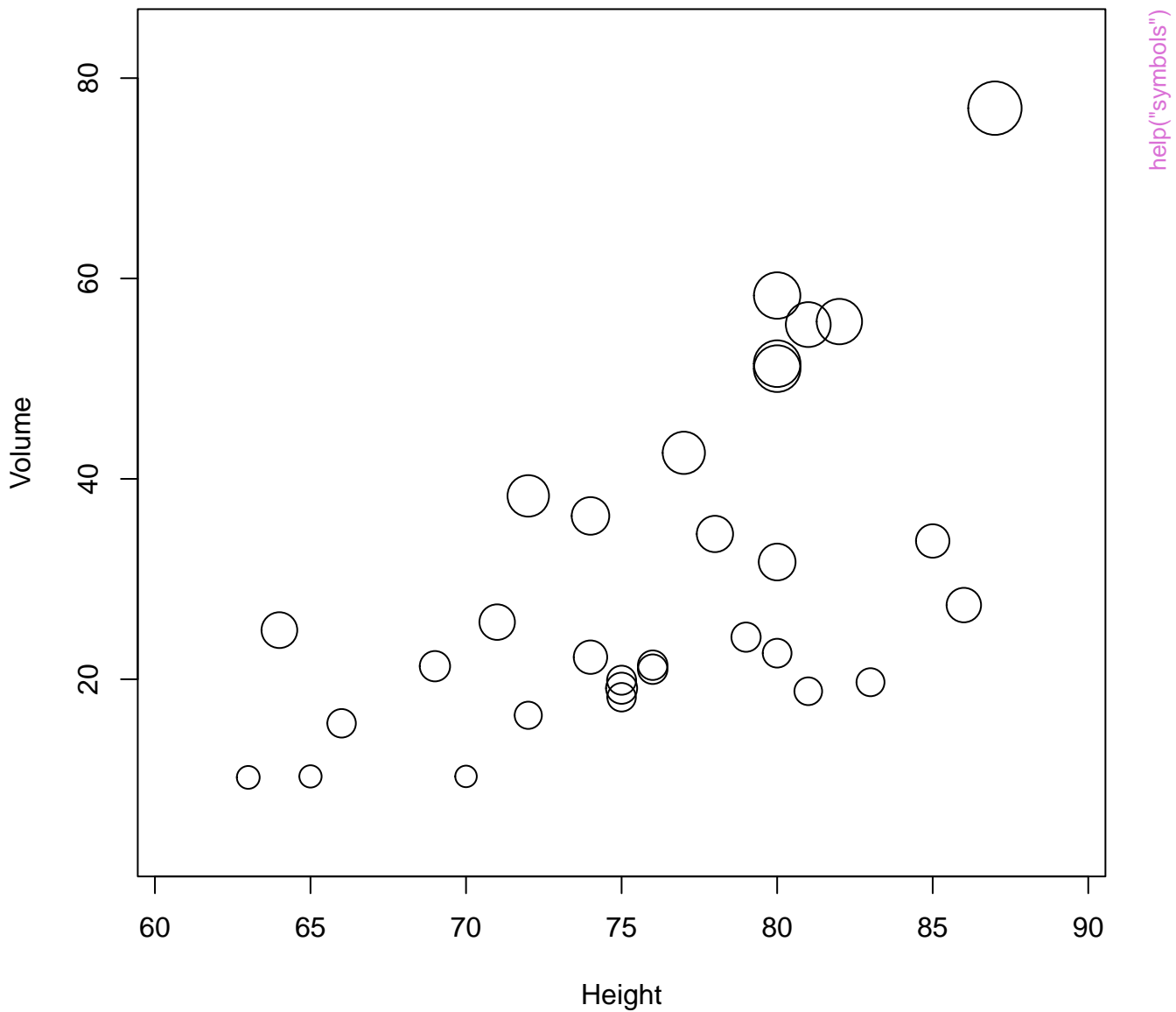
Sunflower plot (marked point process)



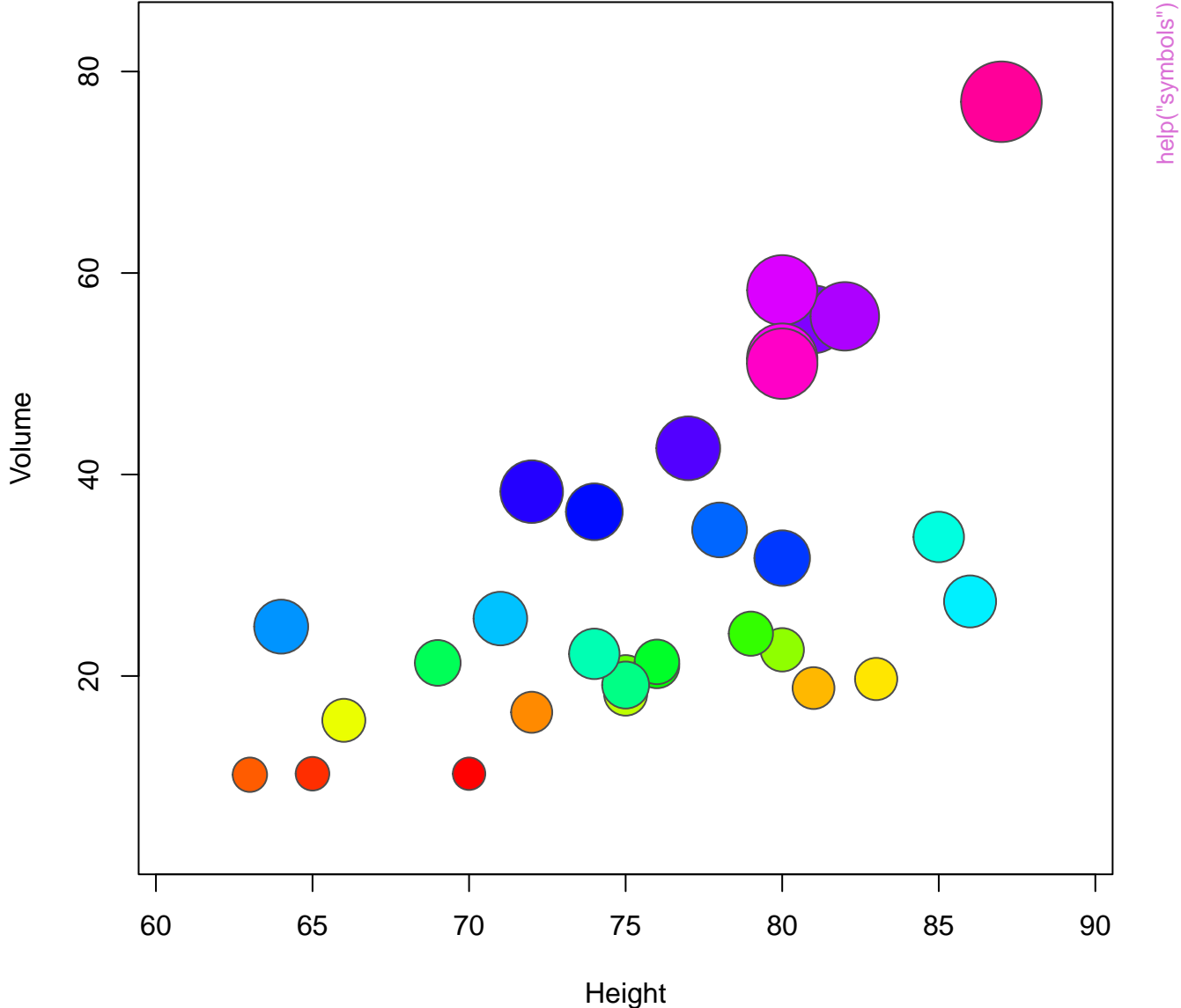




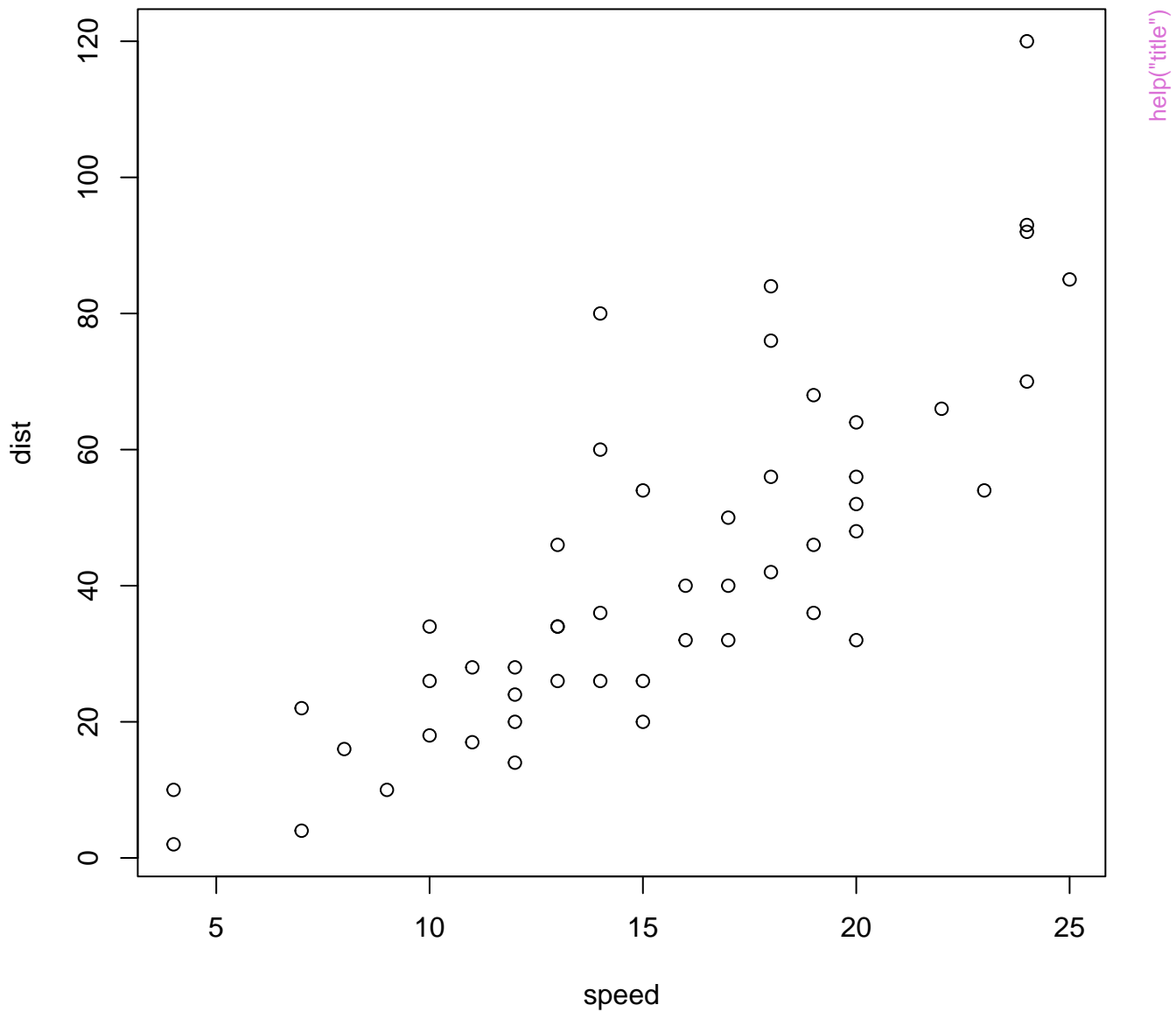
Trees' Girth



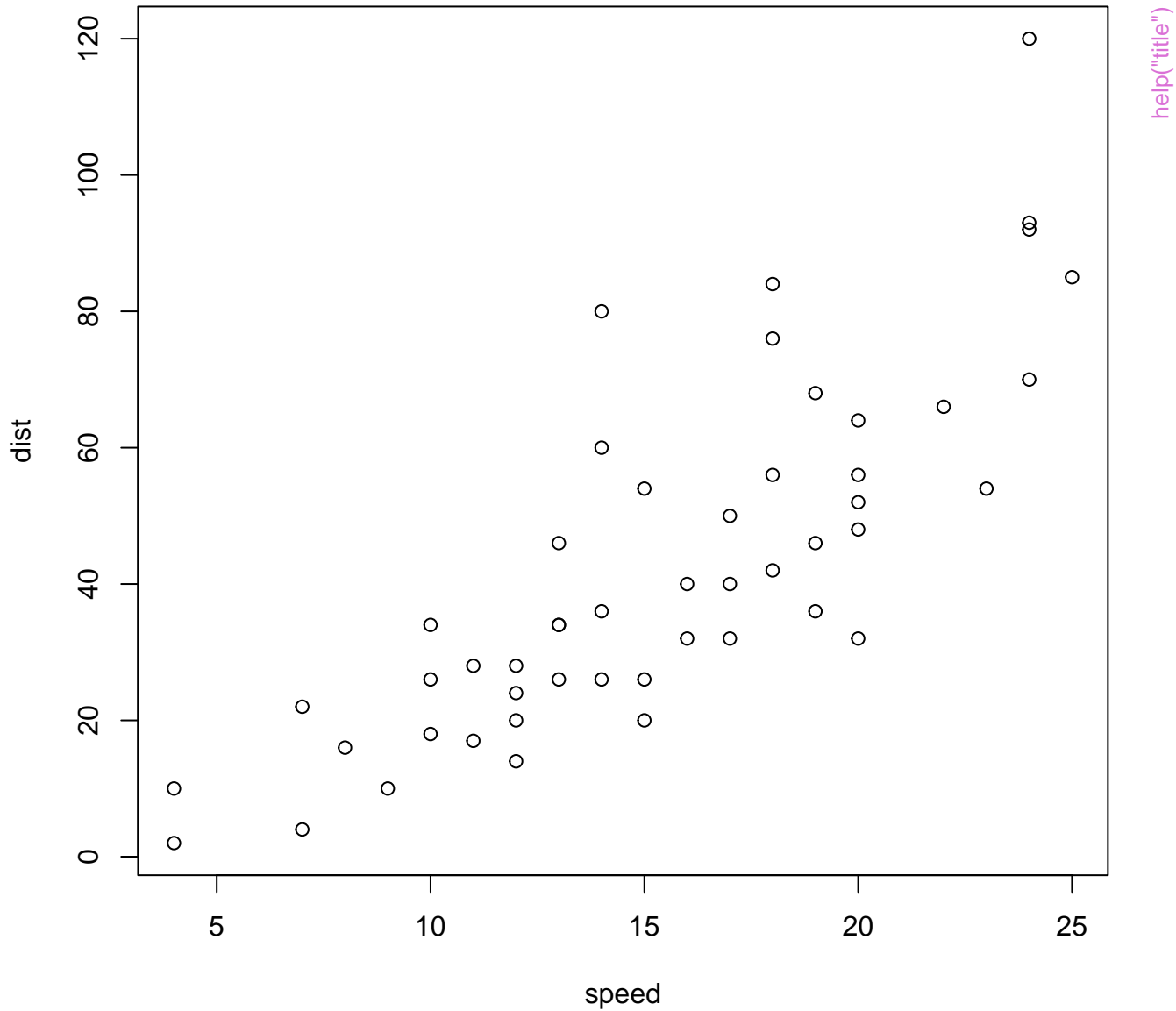
symbols(*, circles = Girth/16, bg = 1:N)



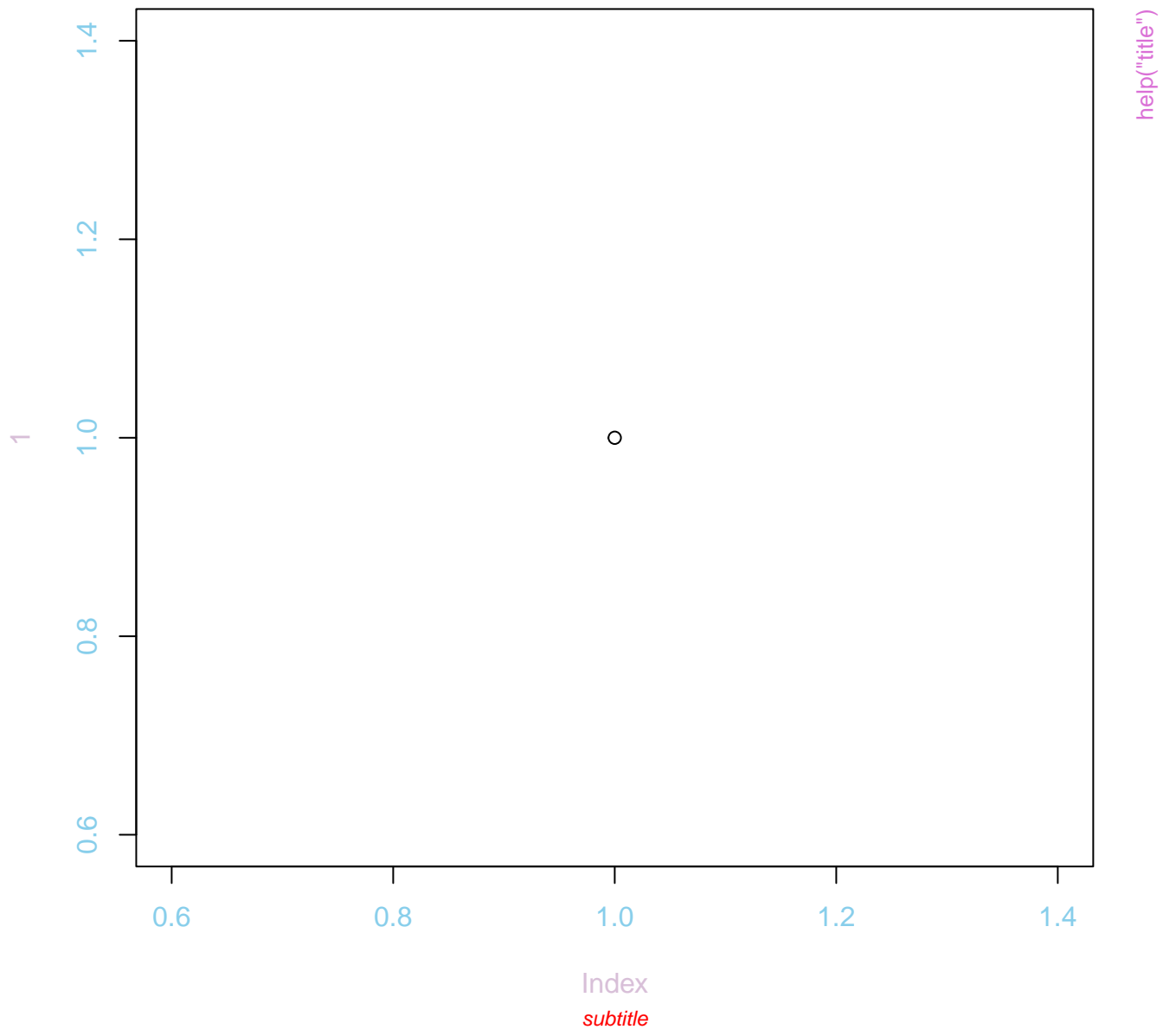
Stopping Distance versus Speed



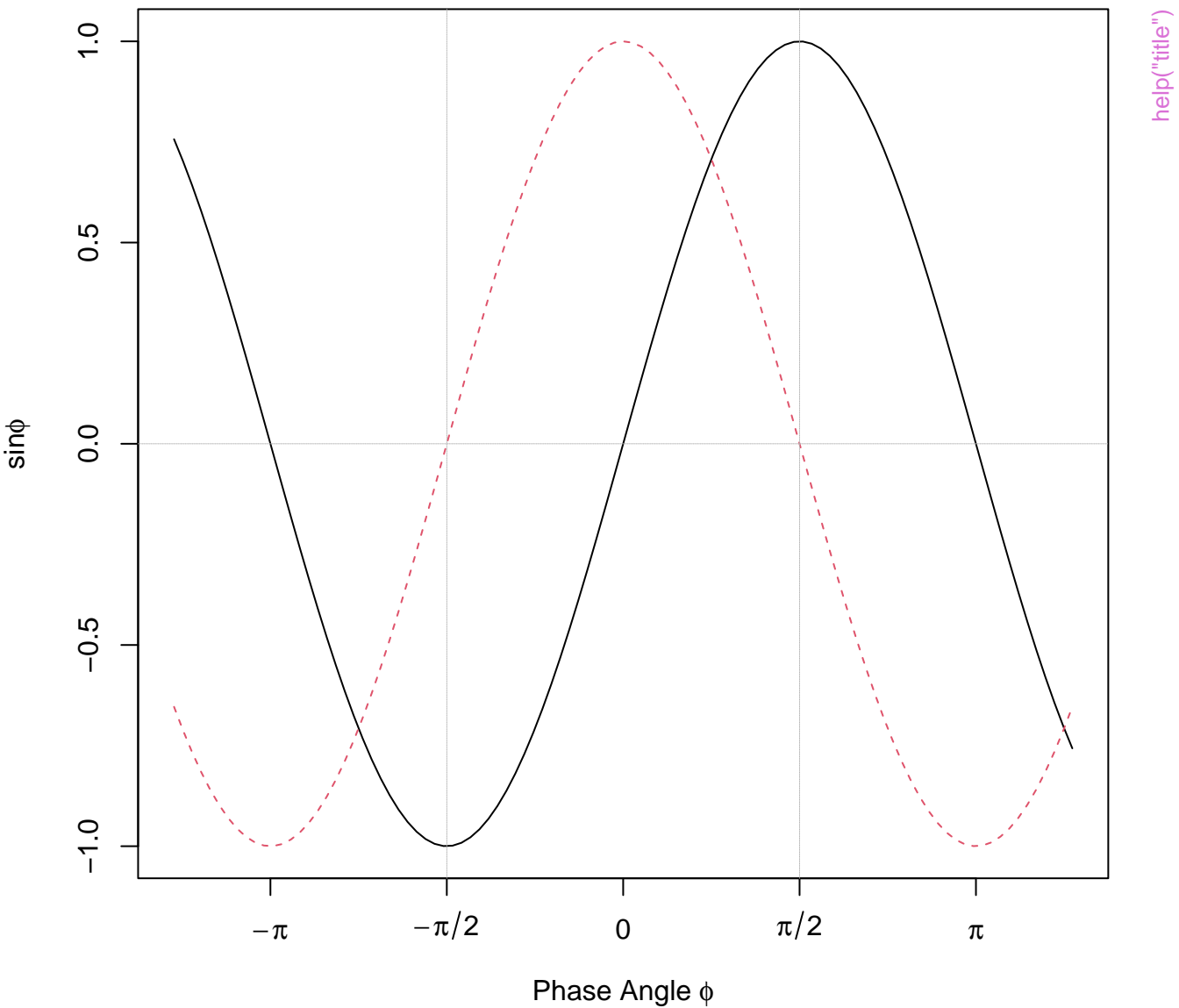
Stopping Distance versus Speed



Main Title

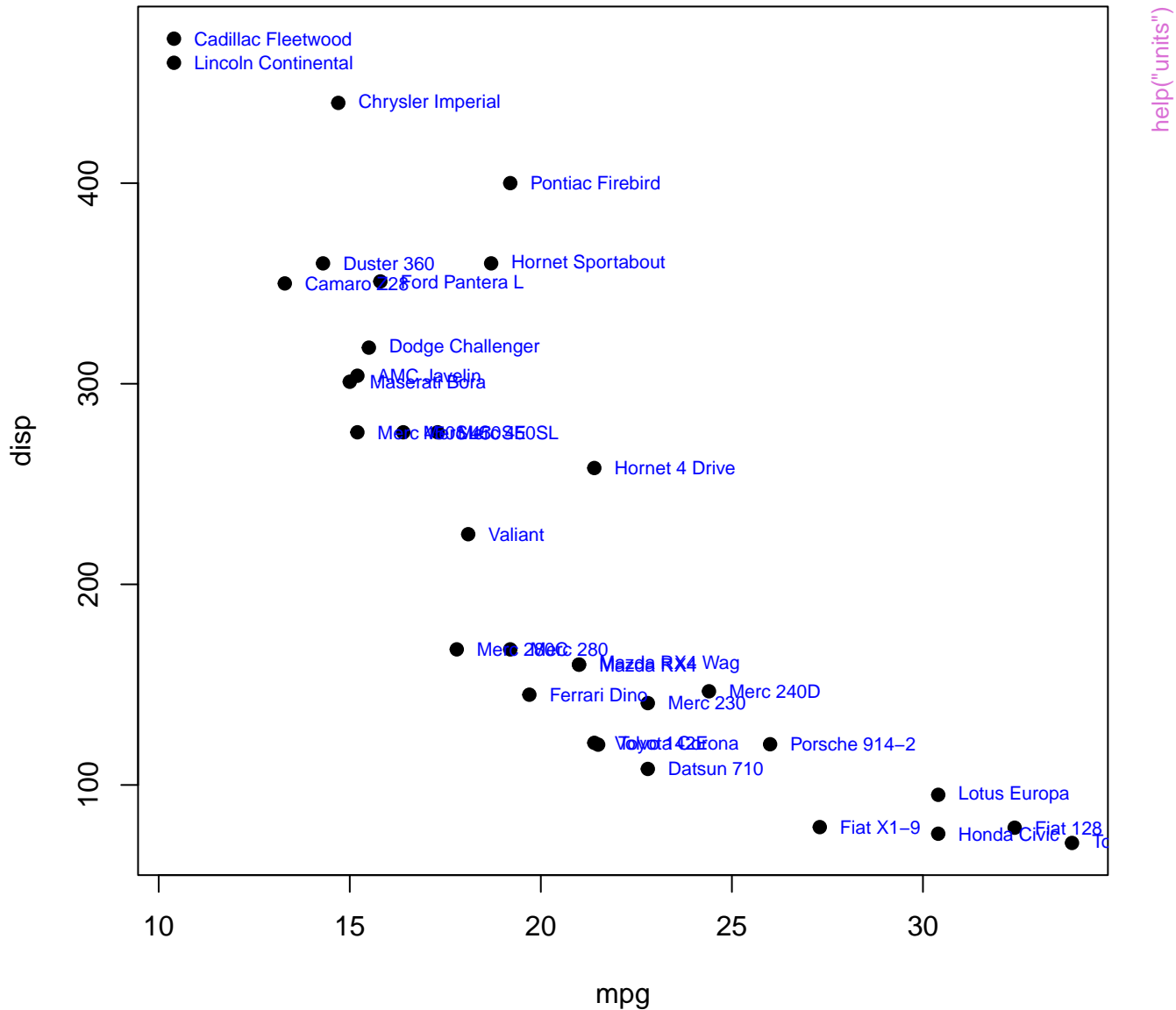


$\sin\phi$ and $\cos\phi$

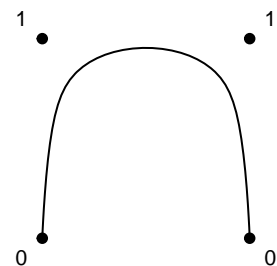
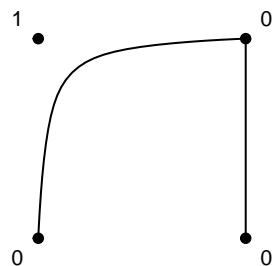
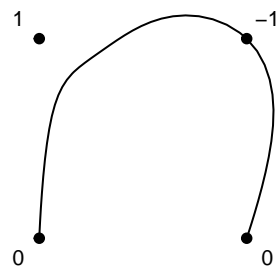
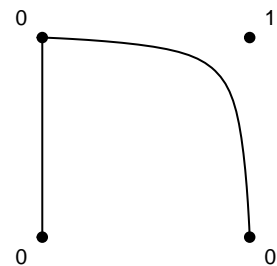
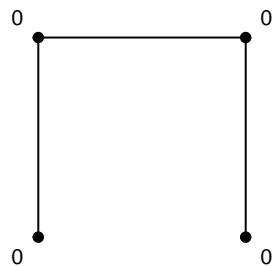
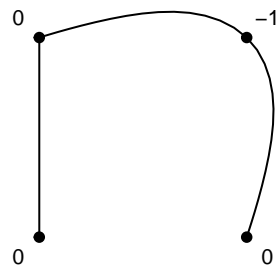
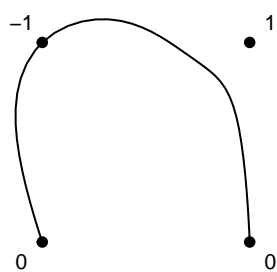
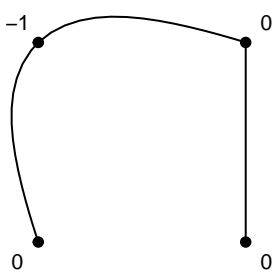
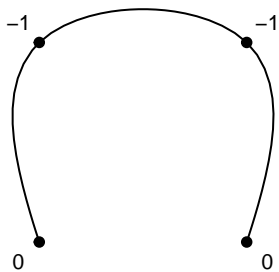


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Motor Trend Cars



Open X-splines



Closed X-splines

