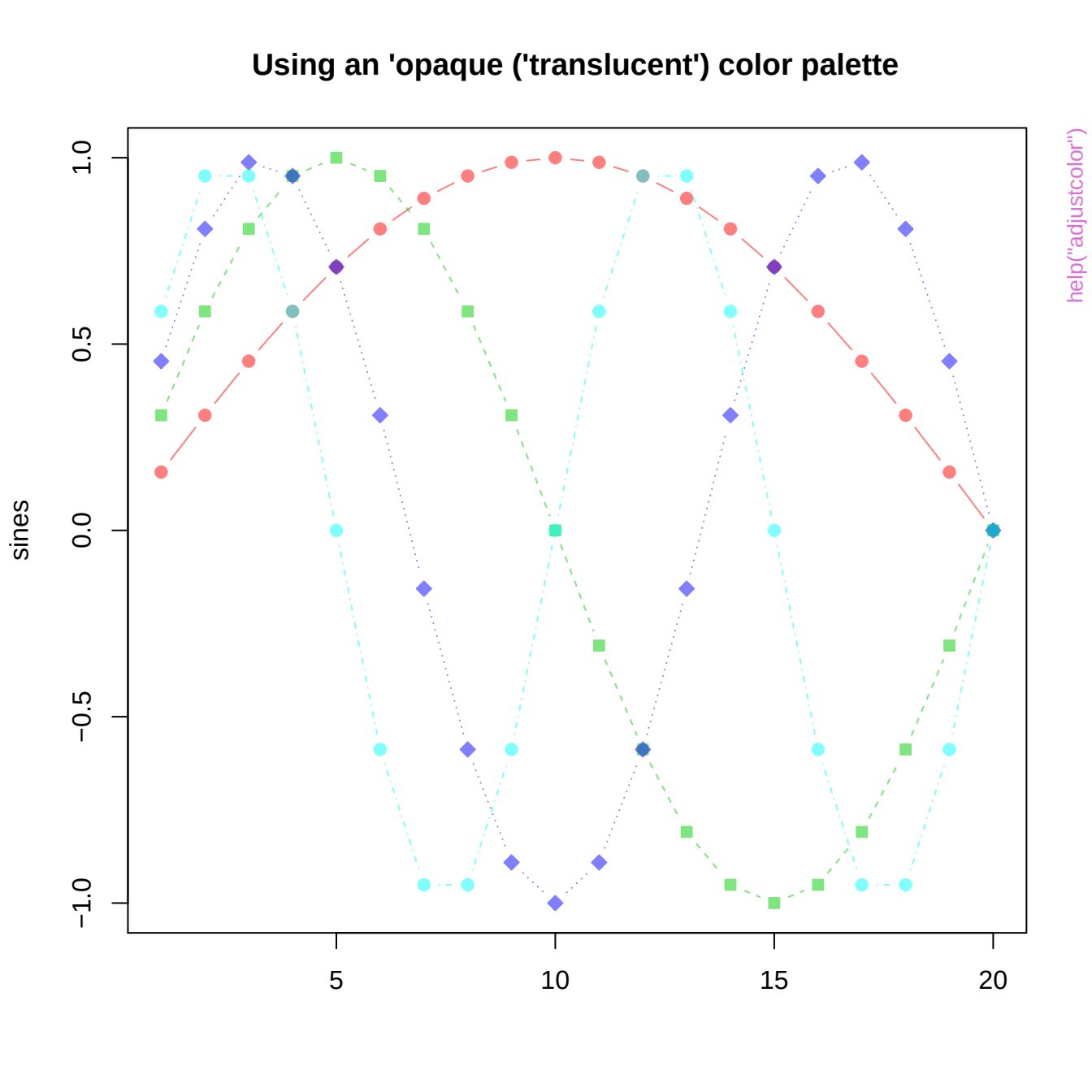
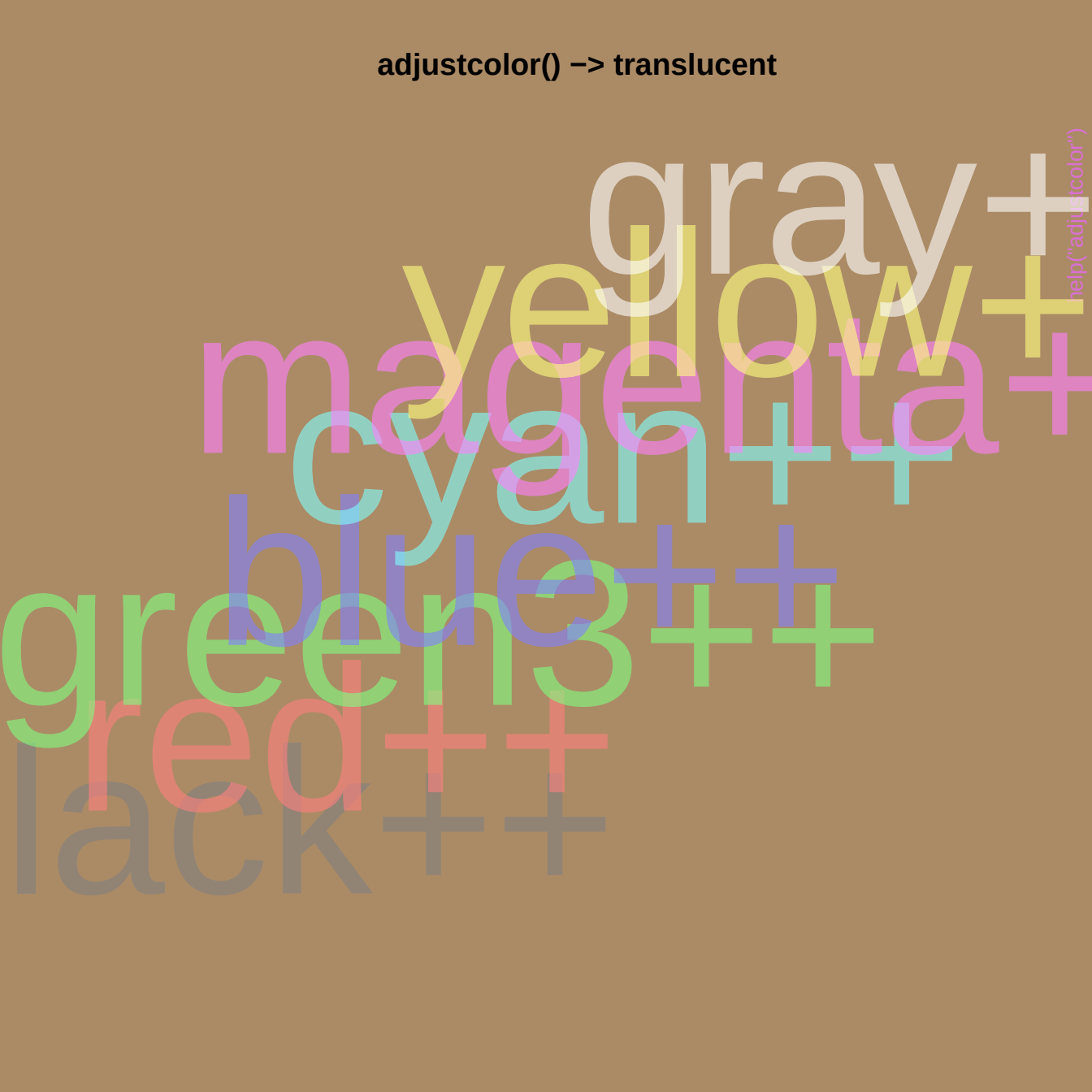
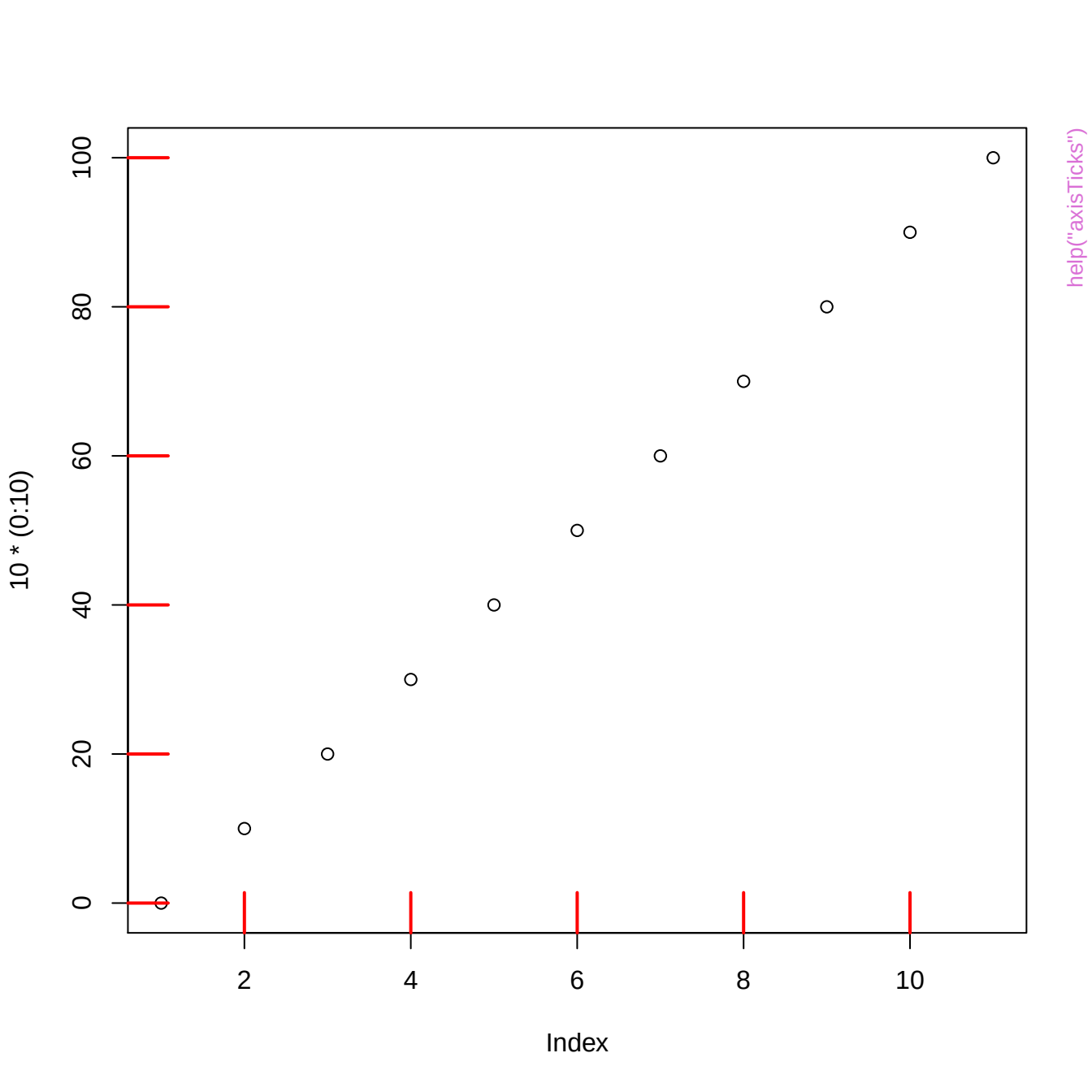
example(Japanese)

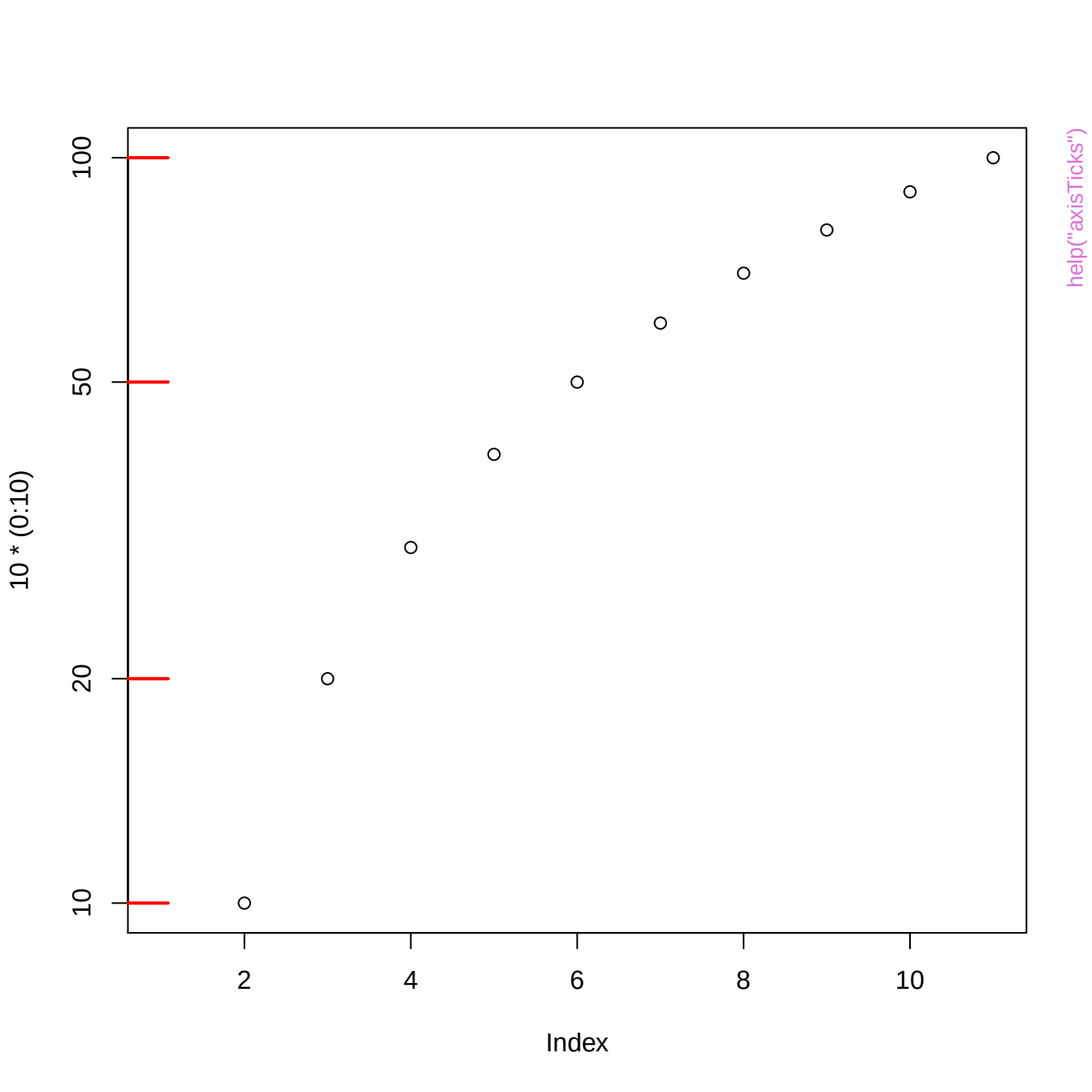
help("Japanese")

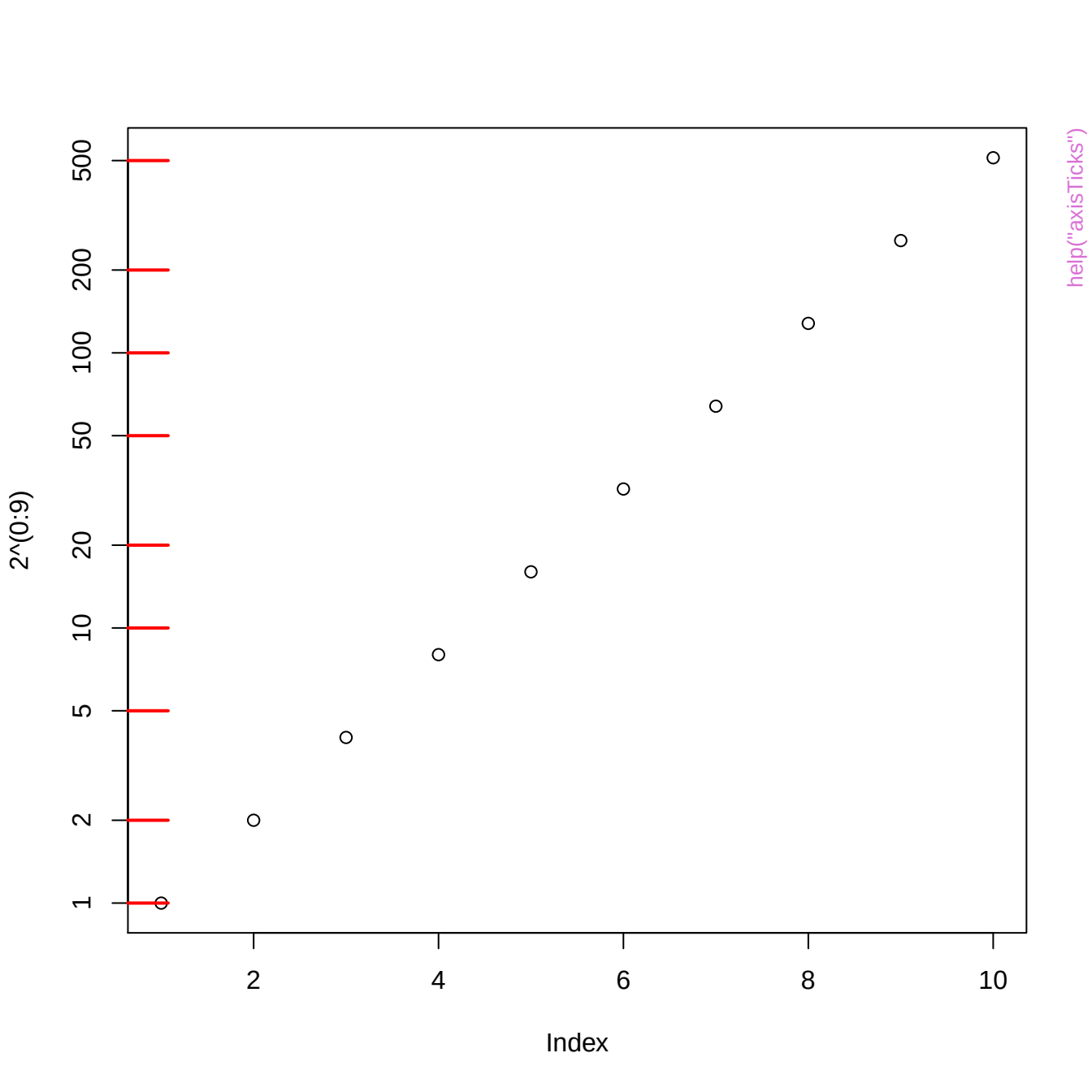
using Hershey fonts

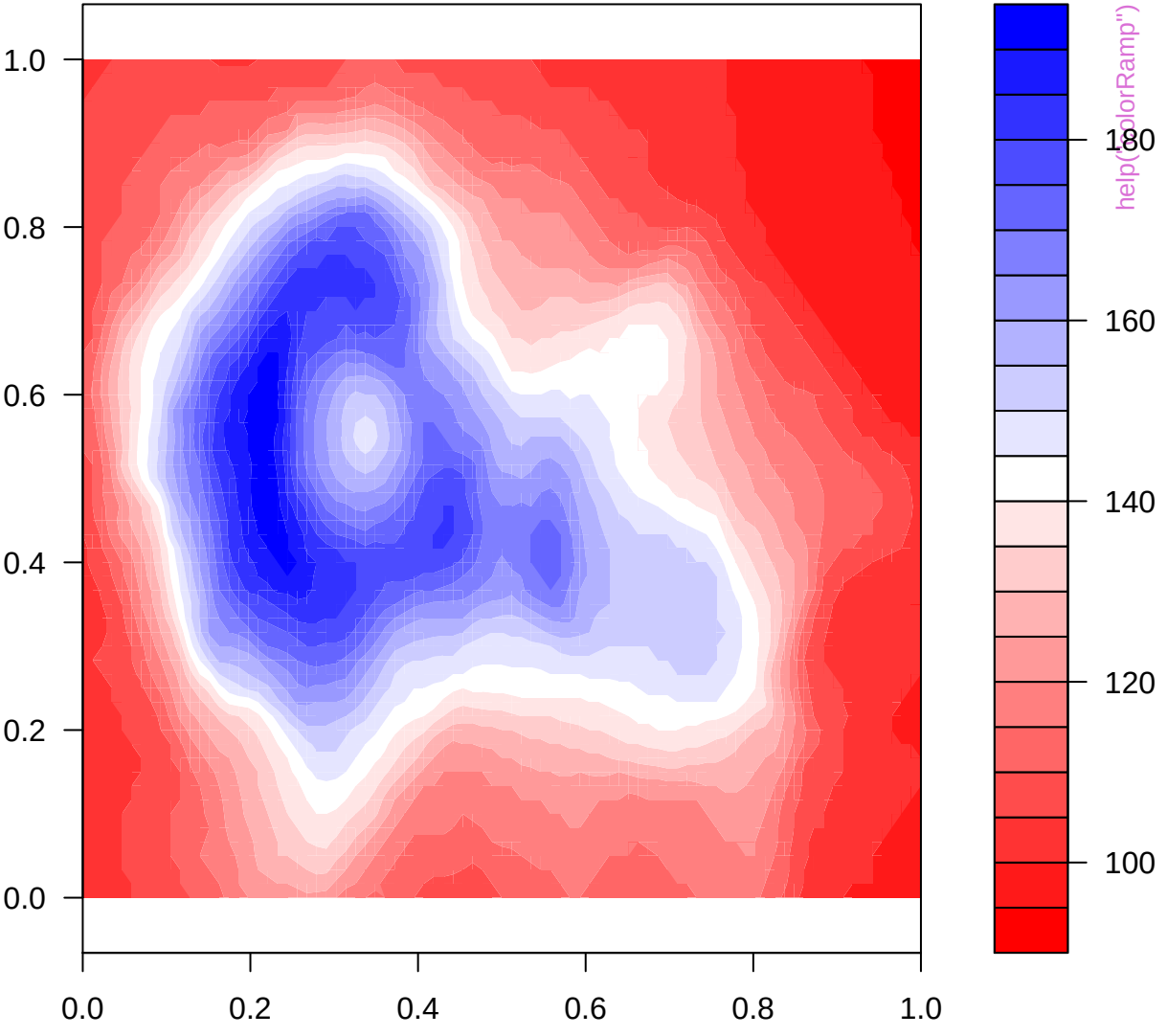

Using an 'opaque ('translucent') color palette
sines
1.0
0.5
0.0
−0.5
−1.0
5
10
15
20
help("adjustcolor")

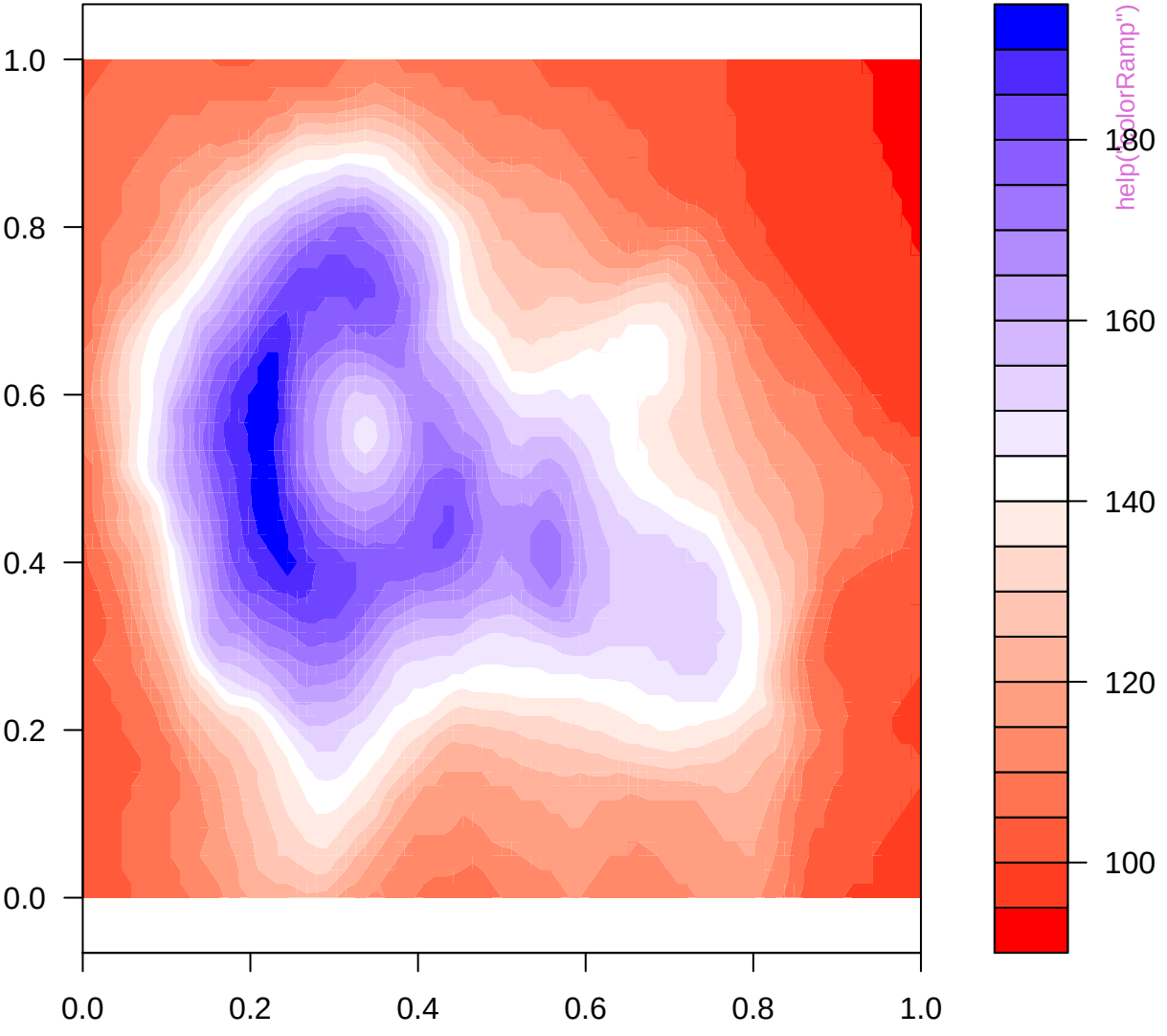

adjustcolor() -> translucent
gray++
yellow++
magenta++
cyan+++
blue+++
green3++
red++
lack++
help("adjustcolor")

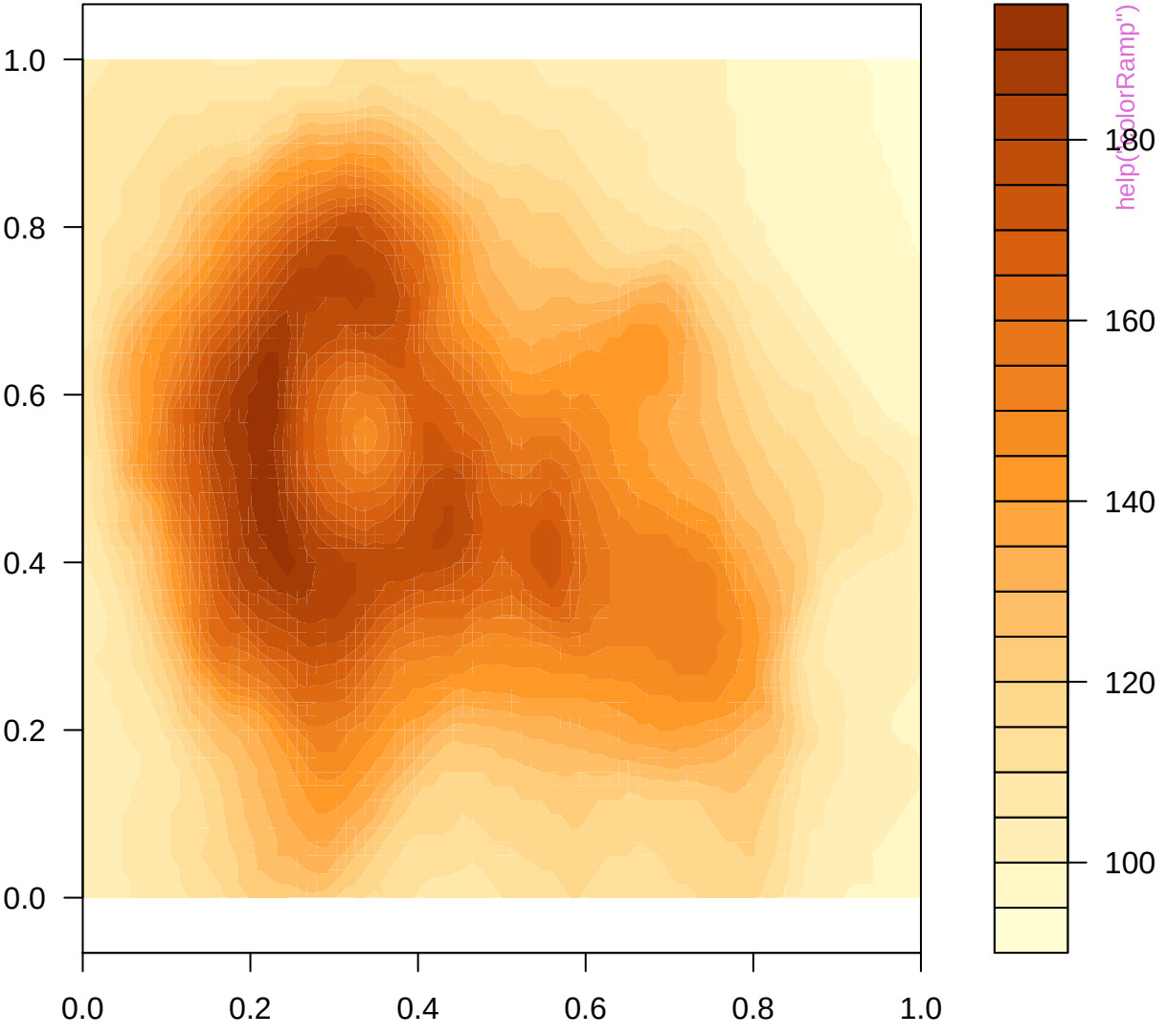

help("axisTicks")
10 * (0:10)
0
20
40
60
80
100
2
4
6
8
10
Index

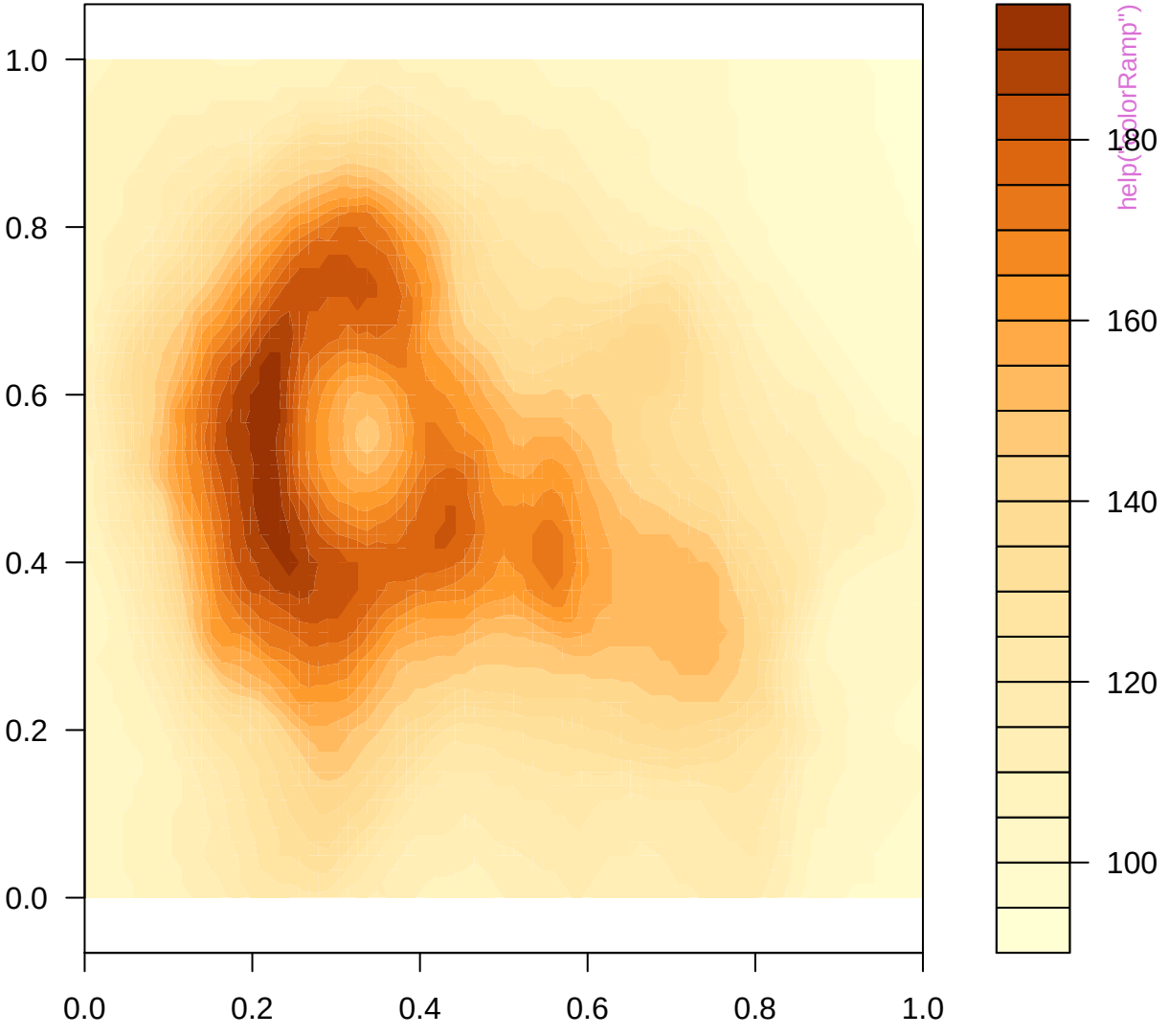

10 * (0:10)
100
50
20
10
2
4
6
8
10
Index
help("axisTicks")

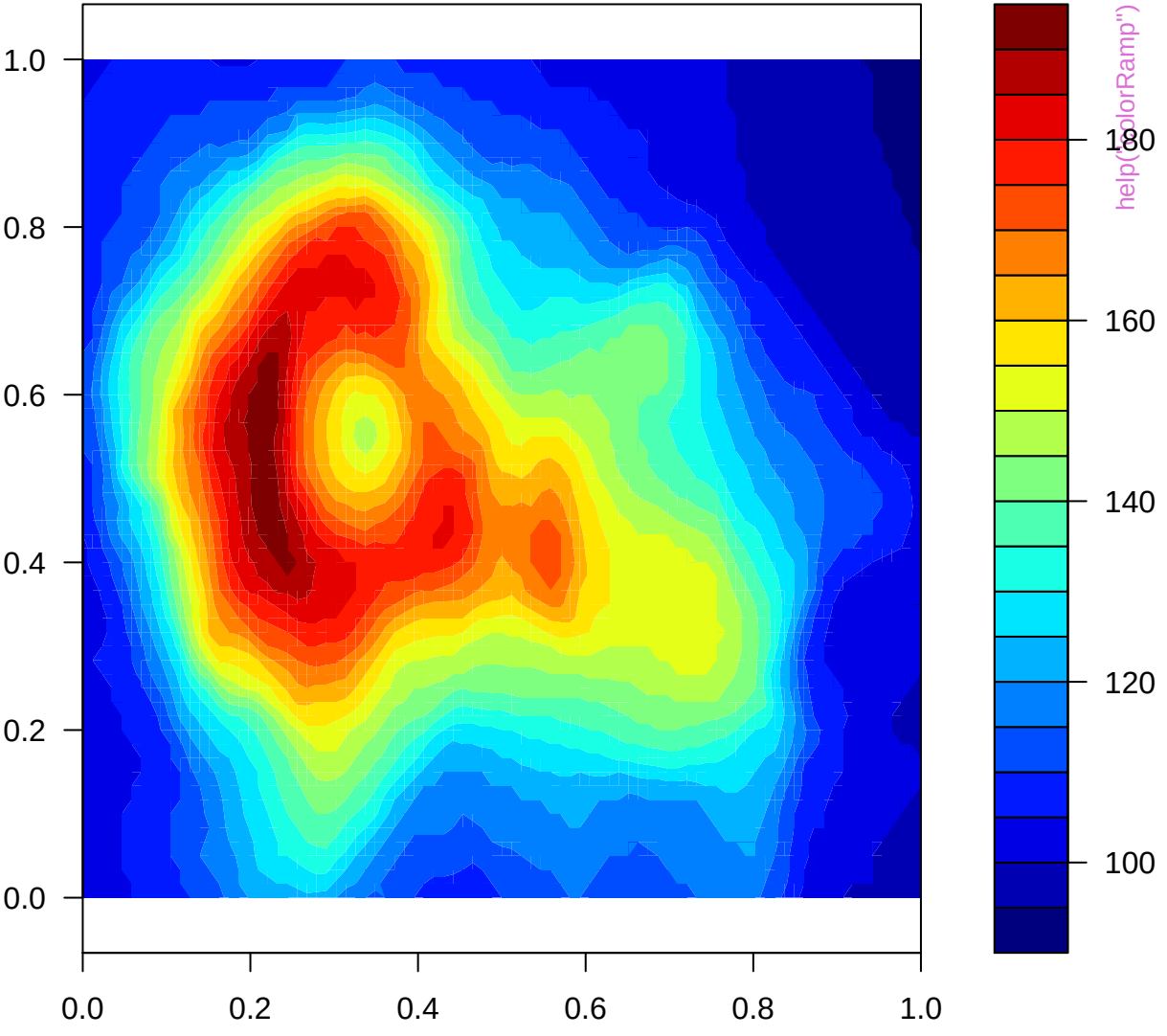

2^(0:9)
1
2
5
10
20
50
100
200
500
2
4
6
8
10
Index
help("axisTicks")

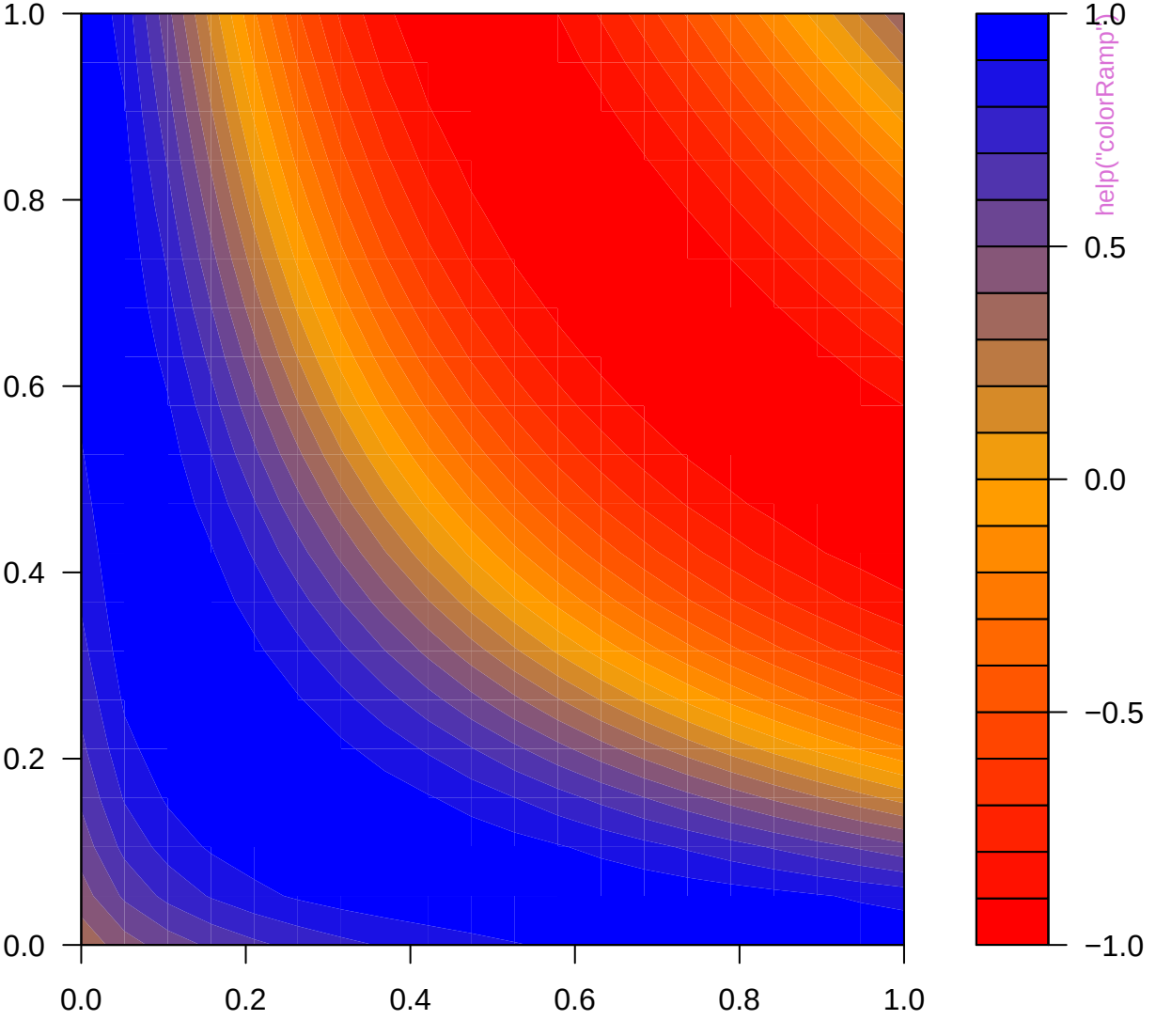

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
180
160
140
120
100
help("colorRamp")

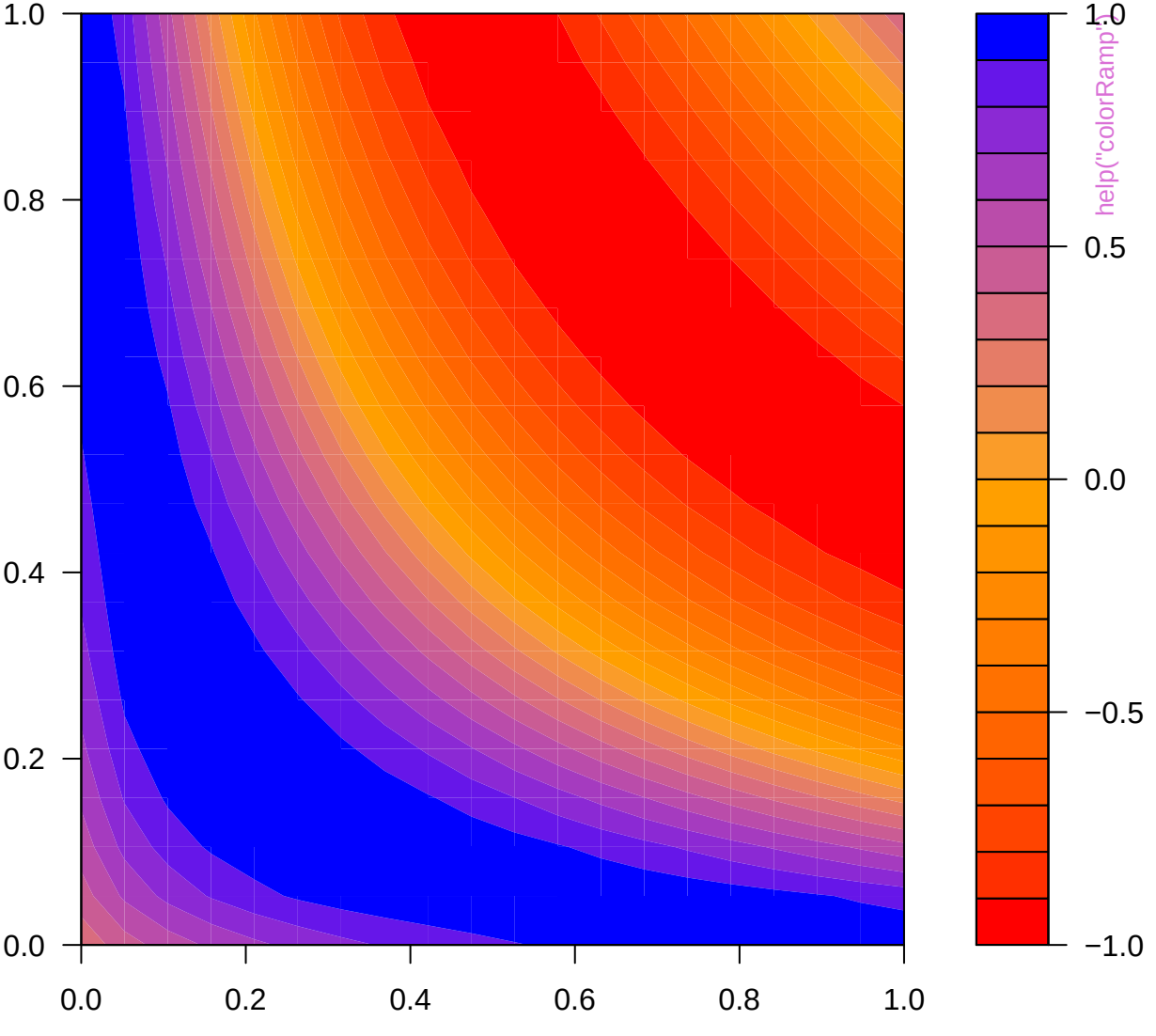

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
180
160
140
120
100
help("colorRamp")


1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
180
160
140
120
100
help("colorRamp")


1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
180
160
140
120
100
help("colorRamp")


1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
180
160
140
120
100
help("colorRamp")


1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
help("colorRamp")
1.0
0.5
0.0
−0.5
−1.0


1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
help("colorRamp")
1.0
0.5
0.0
−0.5
−1.0


white
blue1
aliceblue
chocolate1
blue2
darkgoldenrod4
antiquewhite
chocolate2
darkseagreen4
dodgerblue3
blue3
chocolate3
darkgreen
dodgerblue4
gray4
antiquewhite2
blue4
chocolate4
darkslateblue
gray5
gray30
antiquewhite3
blueviolet
coral
darkslategray
firebrick
gray6
gray31
antiquewhite4
brown
darkkhaki
darkslategray1
firebrick1
gray7
gray32
aquamarine
brown1
coral1
darkmagenta
darkslategray2
firebrick2
gray8
gray33
aquamarine1
brown2
coral2
darkolivegreen
darkslategray3
firebrick3
gray9
gray34
aquamarine2
brown3
coral3
darkolivegreen1
darkslategray4
firebrick4
gray10
gray35
aquamarine3
brown4
coral4
darkolivegreen2
floralwhite
gray11
gray36
aquamarine4
burlywood
cornflowerblue
darkolivegreen3
forestgreen
gray12
gray37
azure
burlywood1
cornsilk
darkolivegreen4
gainsboro
gray13
gray38
azure1
burlywood2
cornsilk1
darkorange
ghostwhite
gray14
gray39
azure2
burlywood3
cornsilk2
darkorange1
gold
gray15
gray40
azure3
burlywood4
cornsilk3
darkorange2
gold1
gray16
gray41
azure4
cadetblue
cornsilk4
darkorange3
gold2
gray17
gray42
beige
cadetblue1
cyan
darkorange4
gold3
gray18
gray43
bisque
cadetblue2
cyan1
darkorchid
gold4
gray19
gray44
bisque1
cadetblue3
cyan2
darkorchid1
goldenrod
gray20
gray45
bisque2
cadetblue4
cyan3
darkorchid2
goldenrod1
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gray46
bisque3
chartreuse
cyan4
darkorchid3
goldenrod2
gray22
gray47
bisque4
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darkorchid4
goldenrod3
gray23
gray48
black
chartreuse2
darkcyan
darkred
goldenrod4
gray24
gray49
blanchedalmond
chartreuse3
darkgoldenrod
darksalmon
dimgray
gray25
gray50
blue
chartreuse4
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gray26
blue1
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dodgerblue1
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gray27
blue2
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dodgerblue2
gray2
gray28
blue3
darkgoldenrod4
darkseagreen3
dodgerblue3
gray3
gray29
blue4
grey0
grey26
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grey2
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brown2
grey3
grey29
brown3
grey4
grey30
brown4
grey5
grey31
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grey6
grey32
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grey7
grey33
burlywood2
grey8
grey34
burlywood3
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grey35
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cadetblue1
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cadetblue2
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cadetblue3
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grey40
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grey45
chartreuse4
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grey51
coral
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coral3
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grey55
coral4
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grey4
lavenderblush4
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grey6
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midnightblue
grey87
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mistyrose2
grey91
mistyrose3
grey92
mistyrose4
grey93
moccasin
grey94
navajowhite
grey95
navajowhite1
grey96
navajowhite2
grey97
navajowhite3
grey98
navajowhite4
grey99
navy
grey100
navyblue
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oldlace
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olivedrab2
honeydew4
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hotpink3
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hotpink4
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indianred3
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lightblue3
peachpuff2
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peachpuff3
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plum4
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purple3
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salmon4
lightyellow2
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lightyellow3
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seagreen3
magenta
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maroon2
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mediumpurple4
slateblue4
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mediumspringgreen
slategray2
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slategray3
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slategray4
midnightblue
slategrey
mintcream
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mistyrose
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mistyrose1
snow2
mistyrose2
snow3
mistyrose3
snow4
mistyrose4
springgreen
moccasin
springgreen1
navajowhite
springgreen2
navajowhite1
springgreen3
navajowhite2
springgreen4
navajowhite3
steelblue
navajowhite4
steelblue1
navy
steelblue2
navyblue
steelblue3
oldlace
steelblue4
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tan
olivedrab1
tan1
olivedrab2
tan2
olivedrab3
tan3
olivedrab4
tan4
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thistle
orange1
thistle1
orange2
thistle2
orange3
thistle3
orange4
thistle4
orangered
tomato
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tomato1
orangered2
tomato2
orangered3
tomato3
orangered4
tomato4
orchid
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orchid1
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orchid2
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orchid3
turquoise3
orchid4
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palegreen
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violetred2
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palegreen4
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wheat
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wheat1
paleturquoise2
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wheat3
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wheat4
palevioletred
whitesmoke
palevioletred1
yellow
palevioletred2
yellow1
palevioletred3
yellow2
palevioletred4
yellow3
papayawhip
yellow4
peachpuff
yellowgreen
peachpuff1
help(colors)
peachpuff2
peachpuff3
peachpuff4
peru
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pink1
pink2
pink3
pink4
plum
plum1
plum2
plum3
plum4
powderblue
purple
purple1
purple2
purple3
purple4
red
red1
red2
red3
red4
rosybrown
rosybrown1
rosybrown2
rosybrown3
rosybrown4
royalblue
royalblue1
royalblue2
royalblue3
royalblue4
saddlebrown
salmon
salmon1
salmon2
salmon3
salmon4
sandybrown
seagreen
seagreen1
seagreen2
seagreen3
seagreen4
seashell
seashell1
seashell2
seashell3
seashell4
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sienna1
sienna2
sienna3
sienna4
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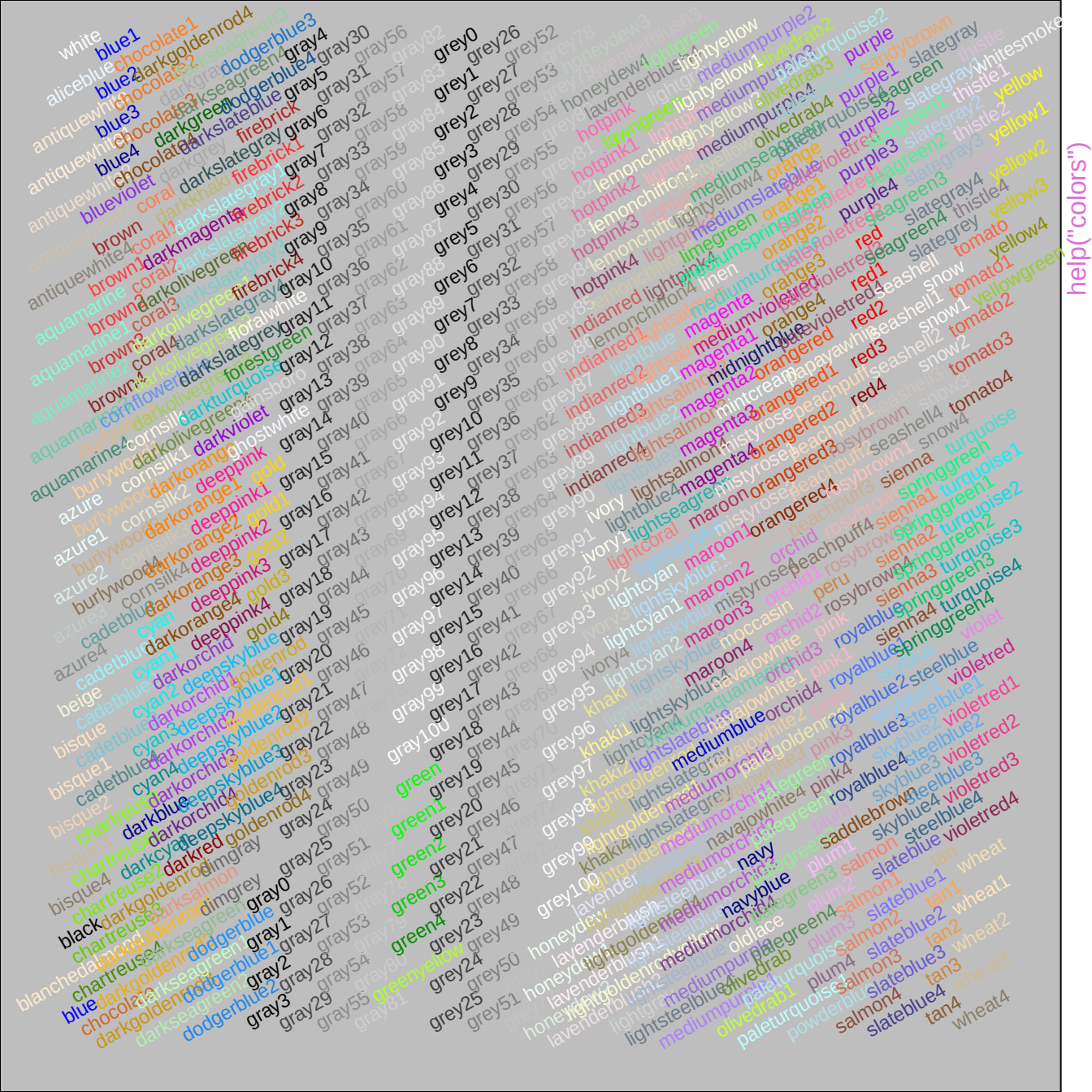
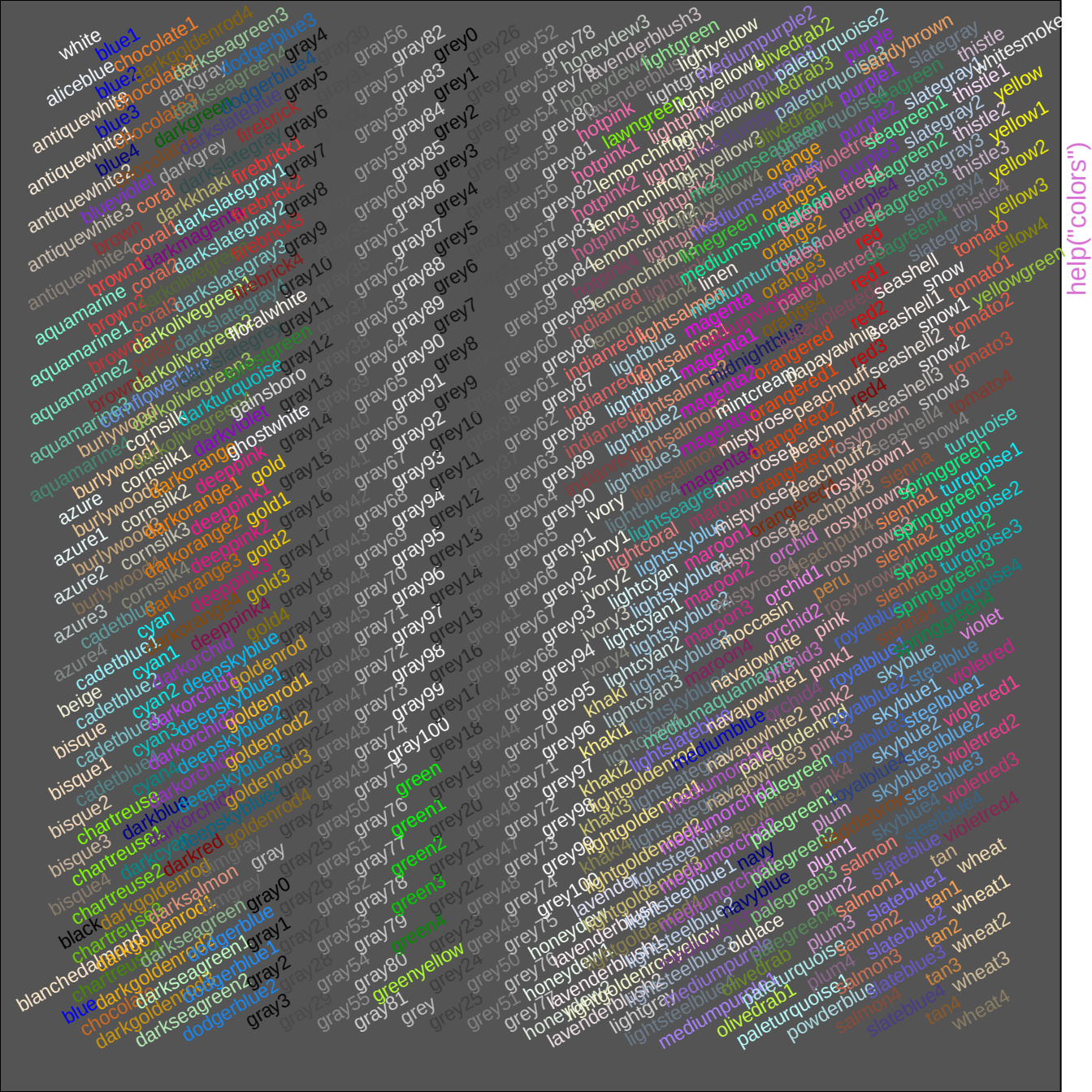
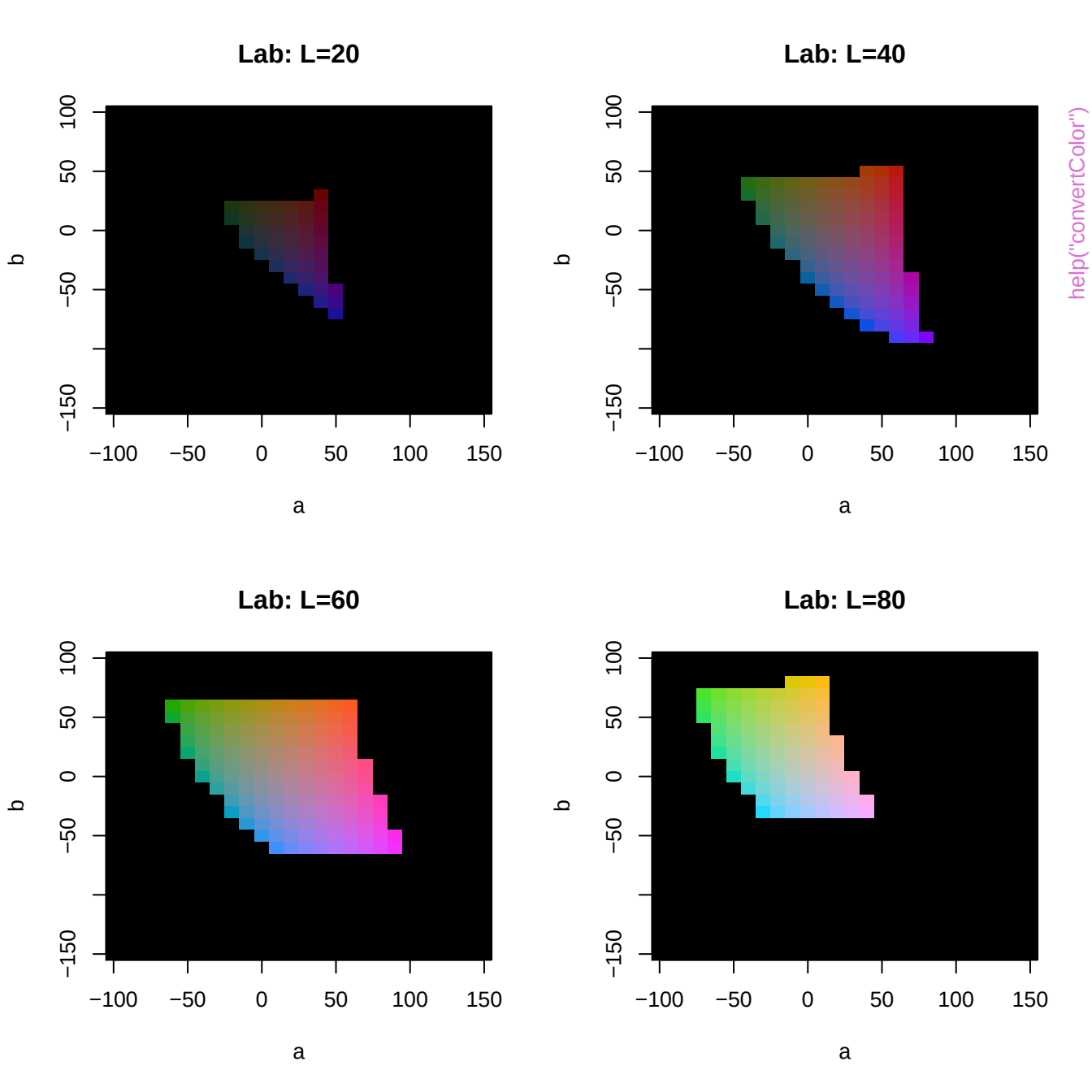
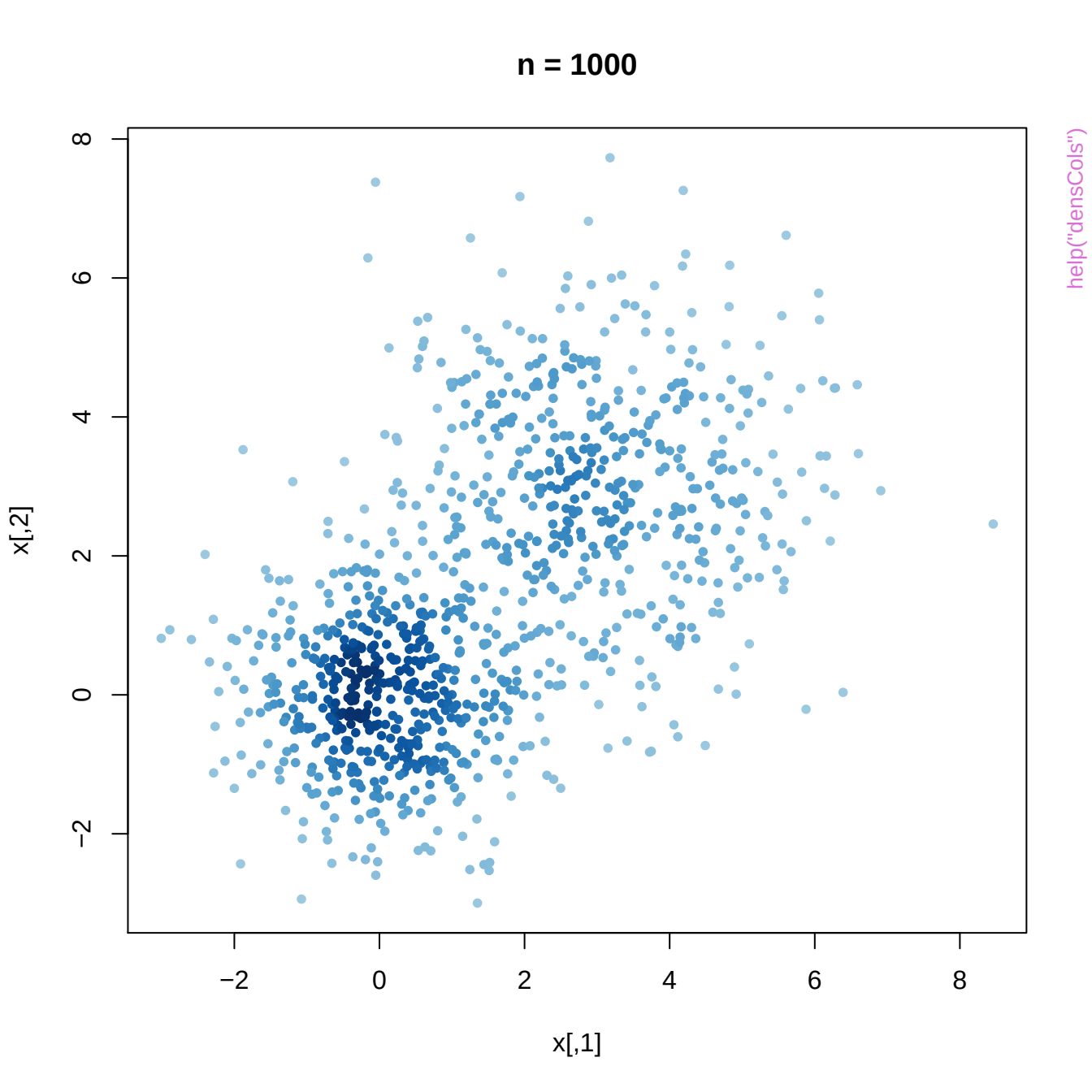
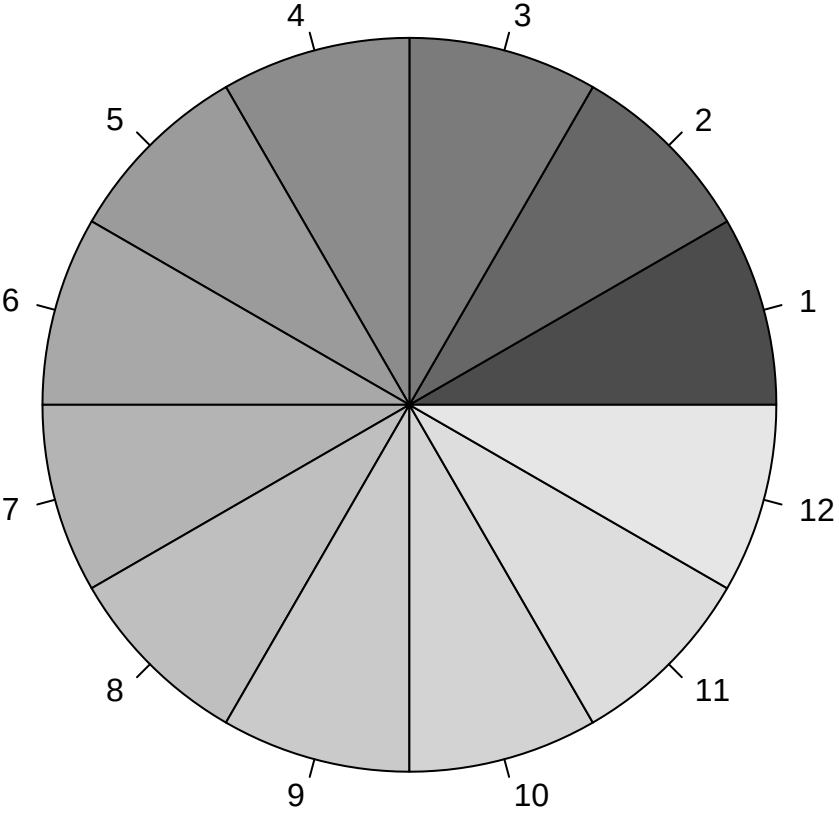
skyblue1
skyblue2
skyblue3
skyblue4
slateblue
slateblue1
slateblue2
slateblue3
slateblue4
slategray
slategray1
slategray2
slategray3
slategray4
slategrey
snow
snow1
snow2
snow3
snow4
springgreen
springgreen1
springgreen2
springgreen3
springgreen4
steelblue
steelblue1
steelblue2
steelblue3
steelblue4
tan
tan1
tan2
tan3
tan4
thistle
thistle1
thistle2
thistle3
thistle4
tomato
tomato1
tomato2
tomato3
tomato4
turquoise
turquoise1
turquoise2
turquoise3
turquoise4
violet
violetred
violetred1
violetred2
violetred3
violetred4
wheat
wheat1
wheat2
wheat3
wheat4
whitesmoke
yellow
yellow1
yellow2
yellow3
yellow4
yellowgreen


help("colors")

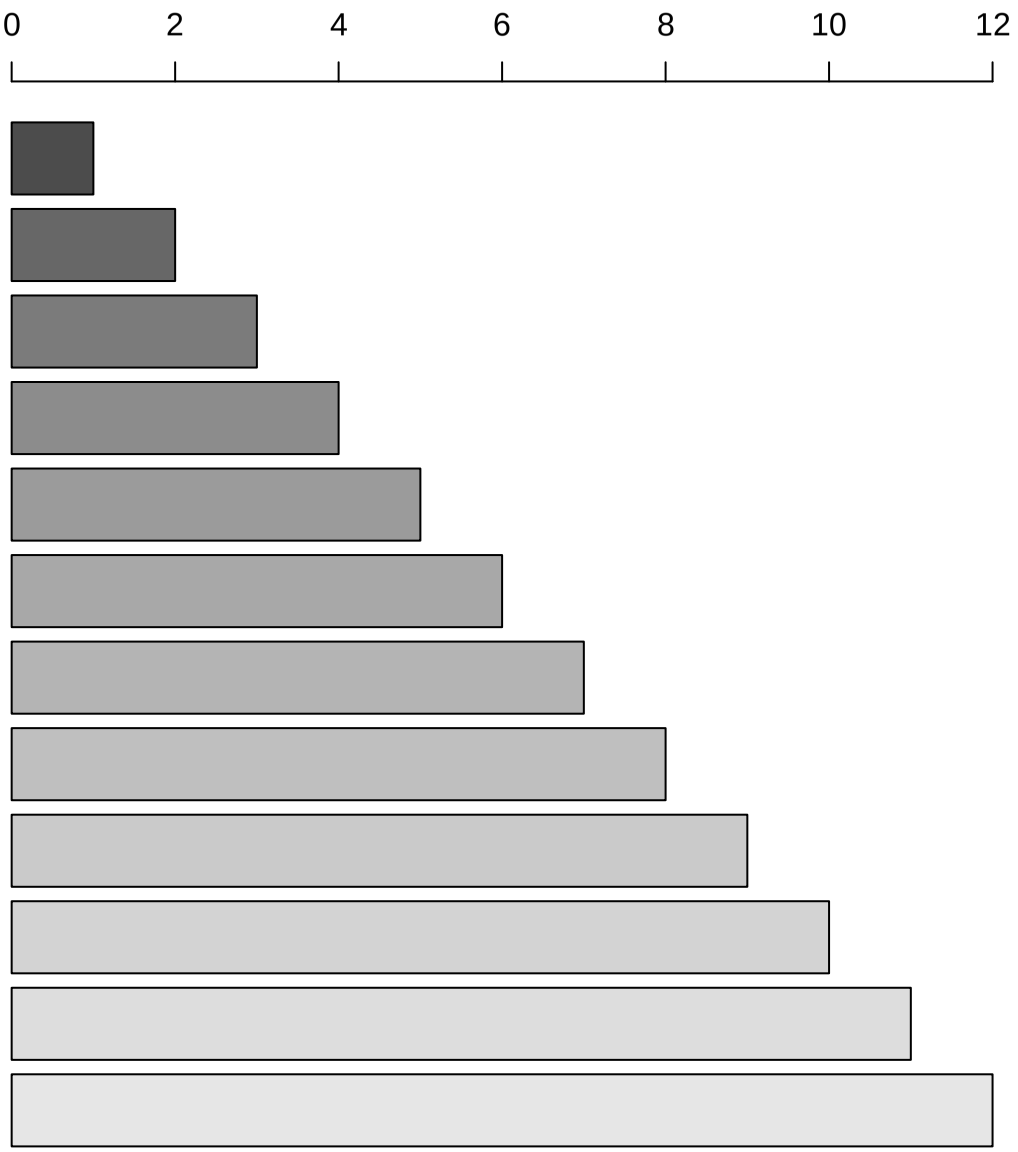

help("colors")


Lab: L=20
Lab: L=40
Lab: L=60
Lab: L=80
b
a
100
50
0
−50
−150
−100
−50
0
50
100
150
help("convertColor")

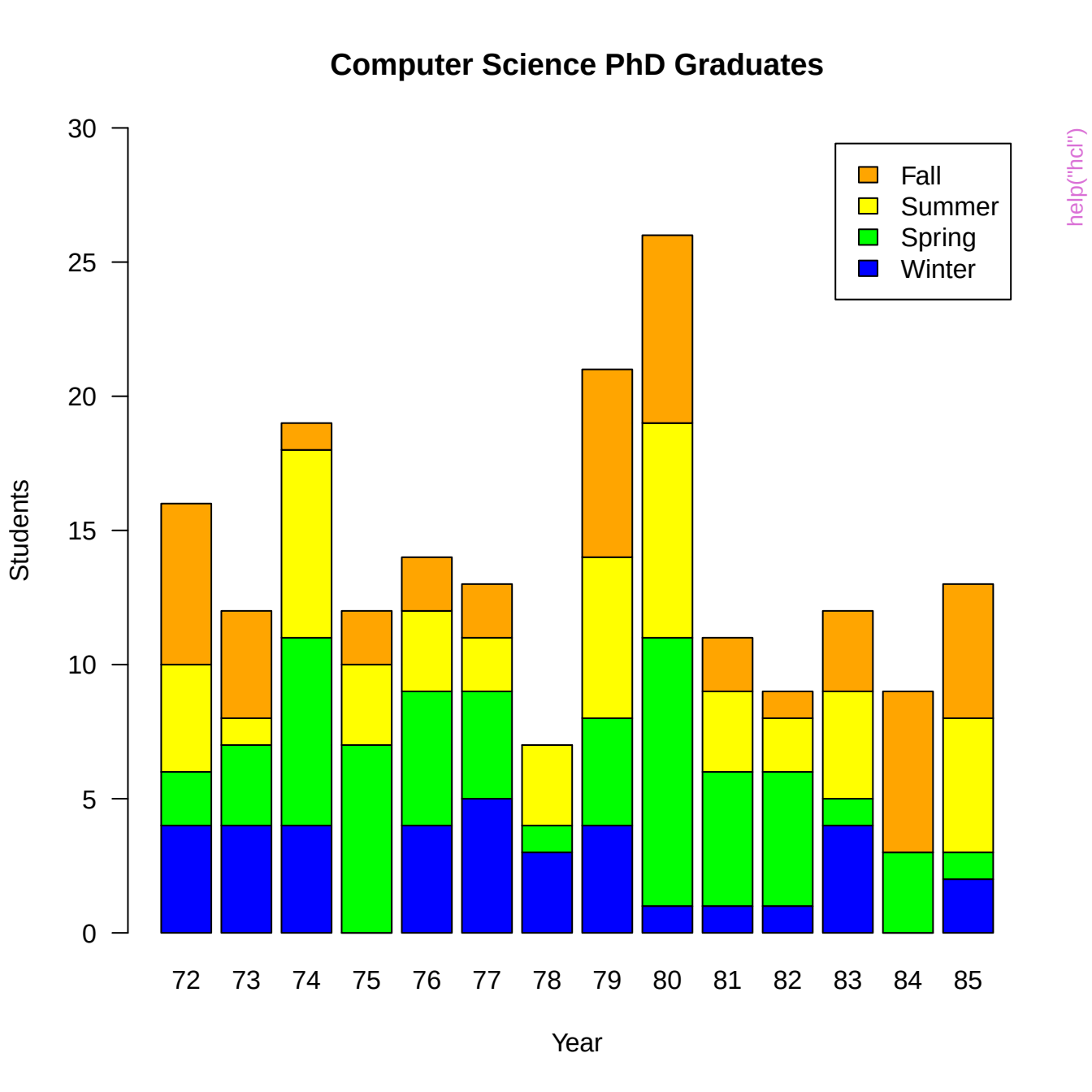

n = 1000
x[,2]
x[,1]
8
6
4
2
0
−2
−2
0
2
4
6
8
help("densCols")

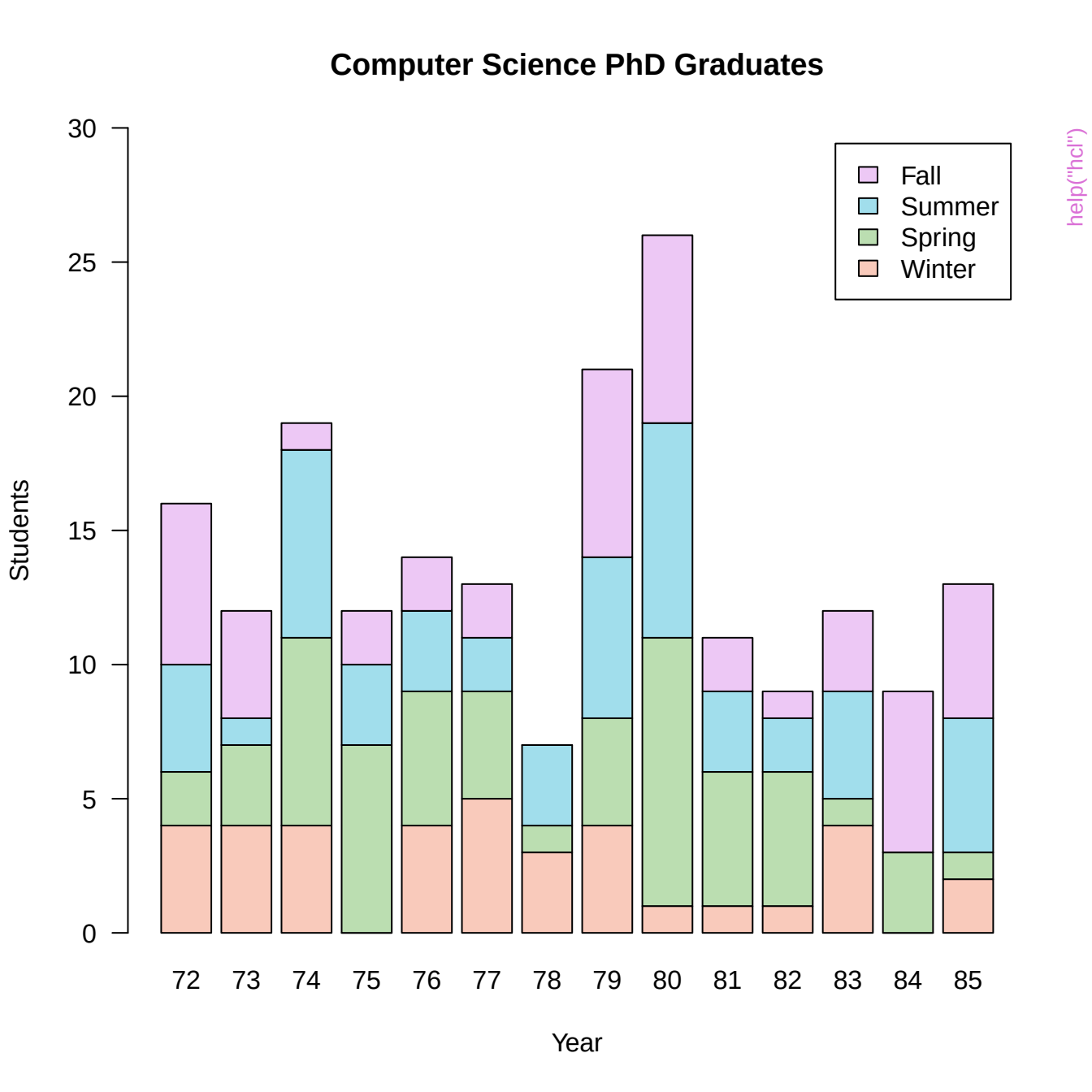


help("gray.colors")



help("gray.colors")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
0
5
10
15
20
25
30
72
73
74
75
76
77
78
79
80
81
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
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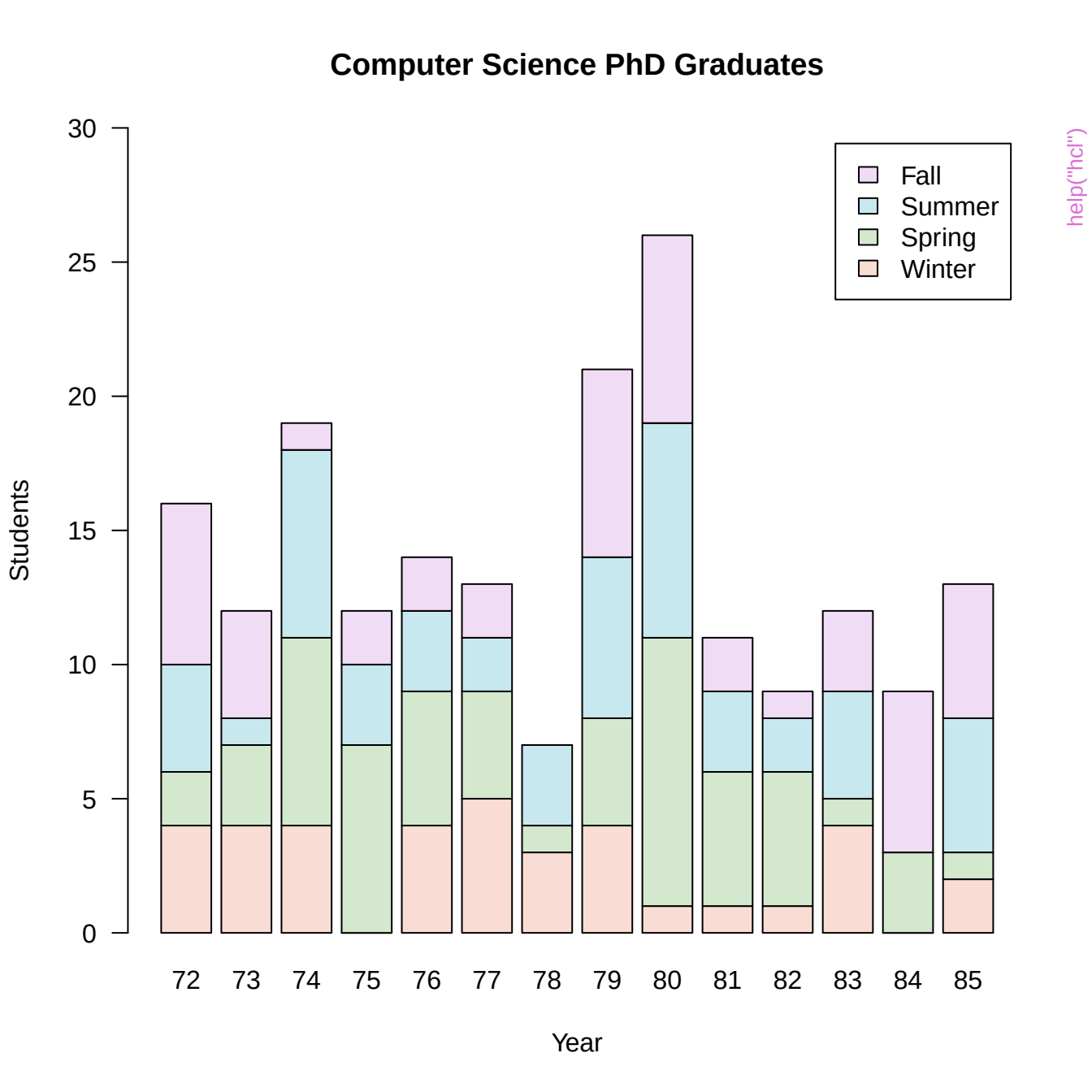
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
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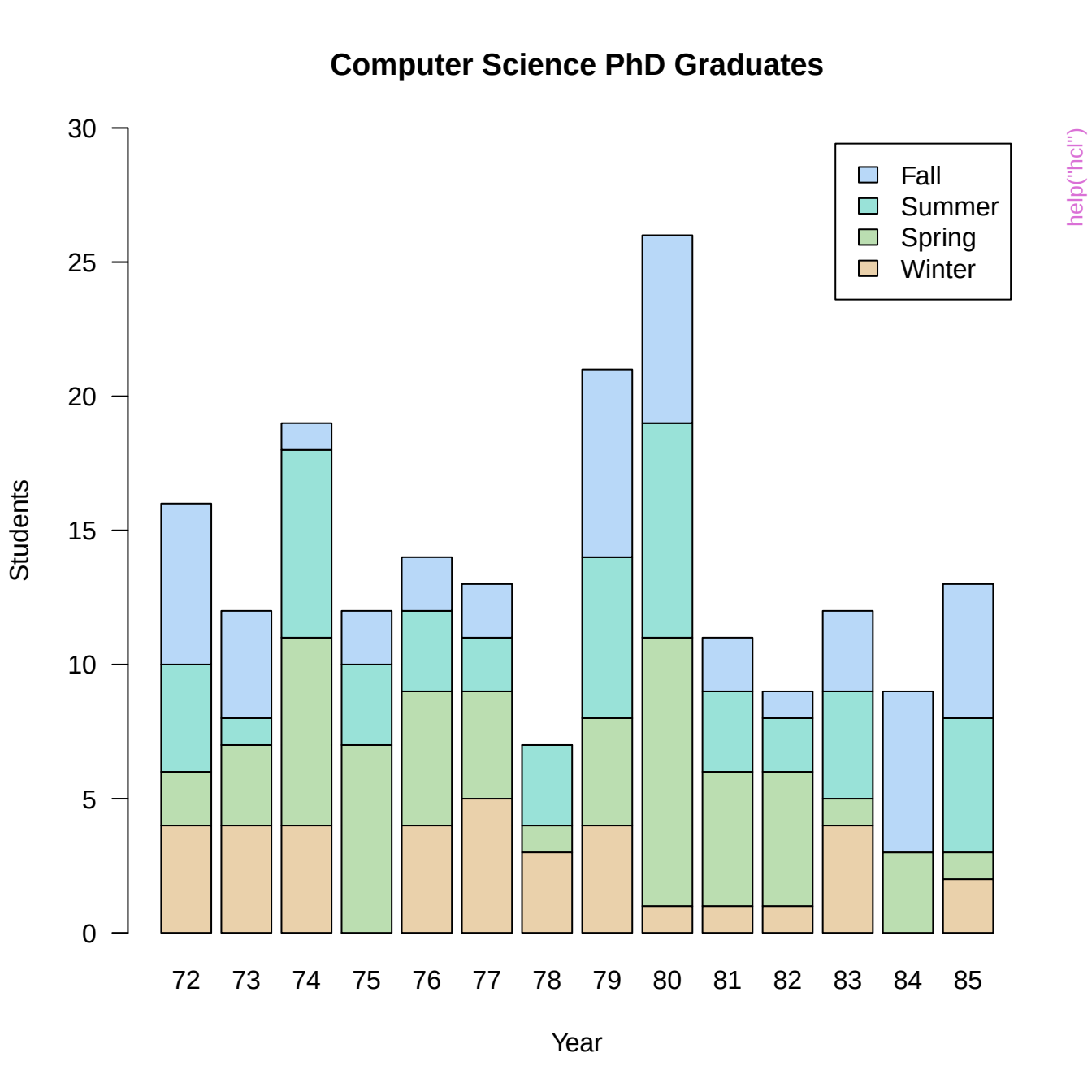
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
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72
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80
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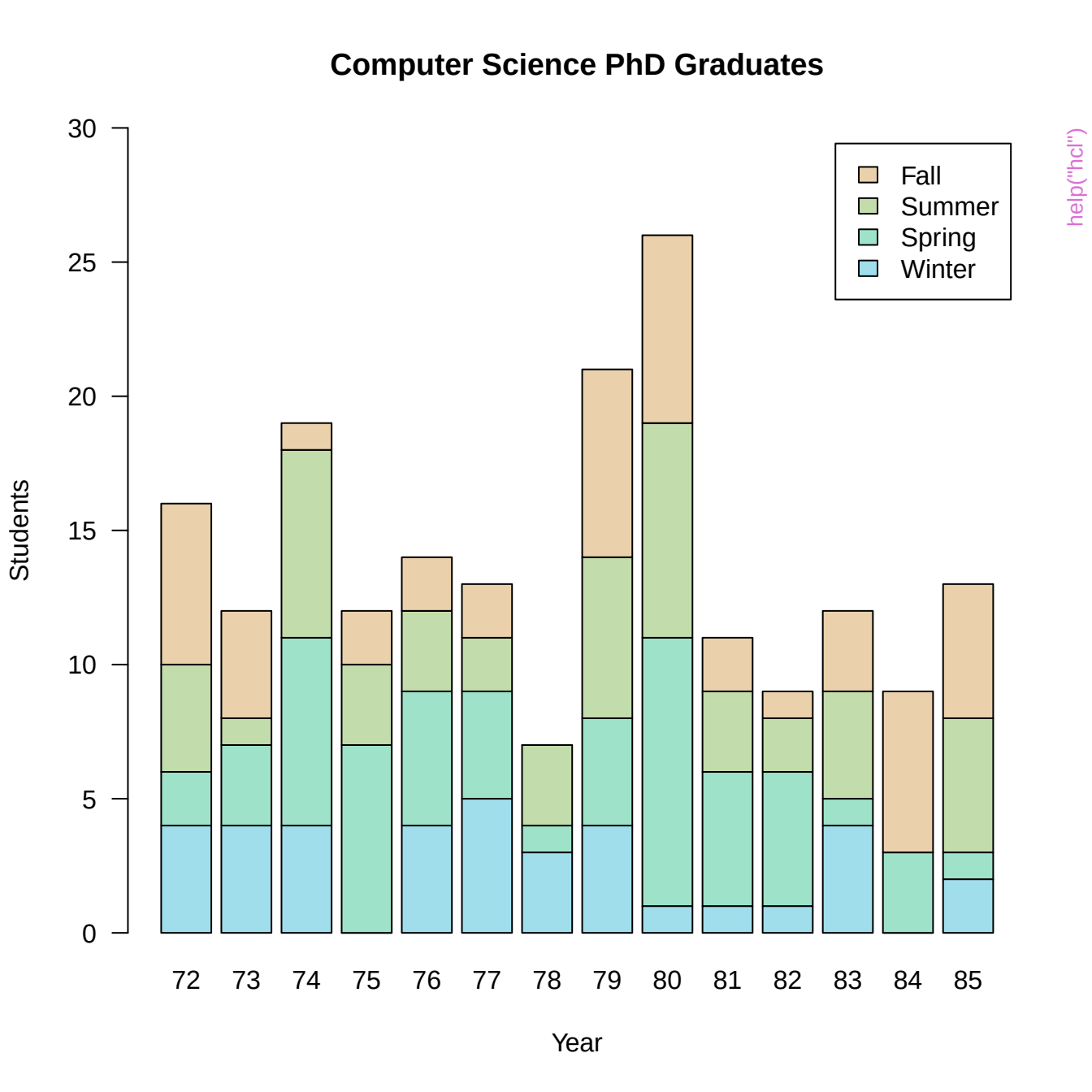
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
0
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72
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78
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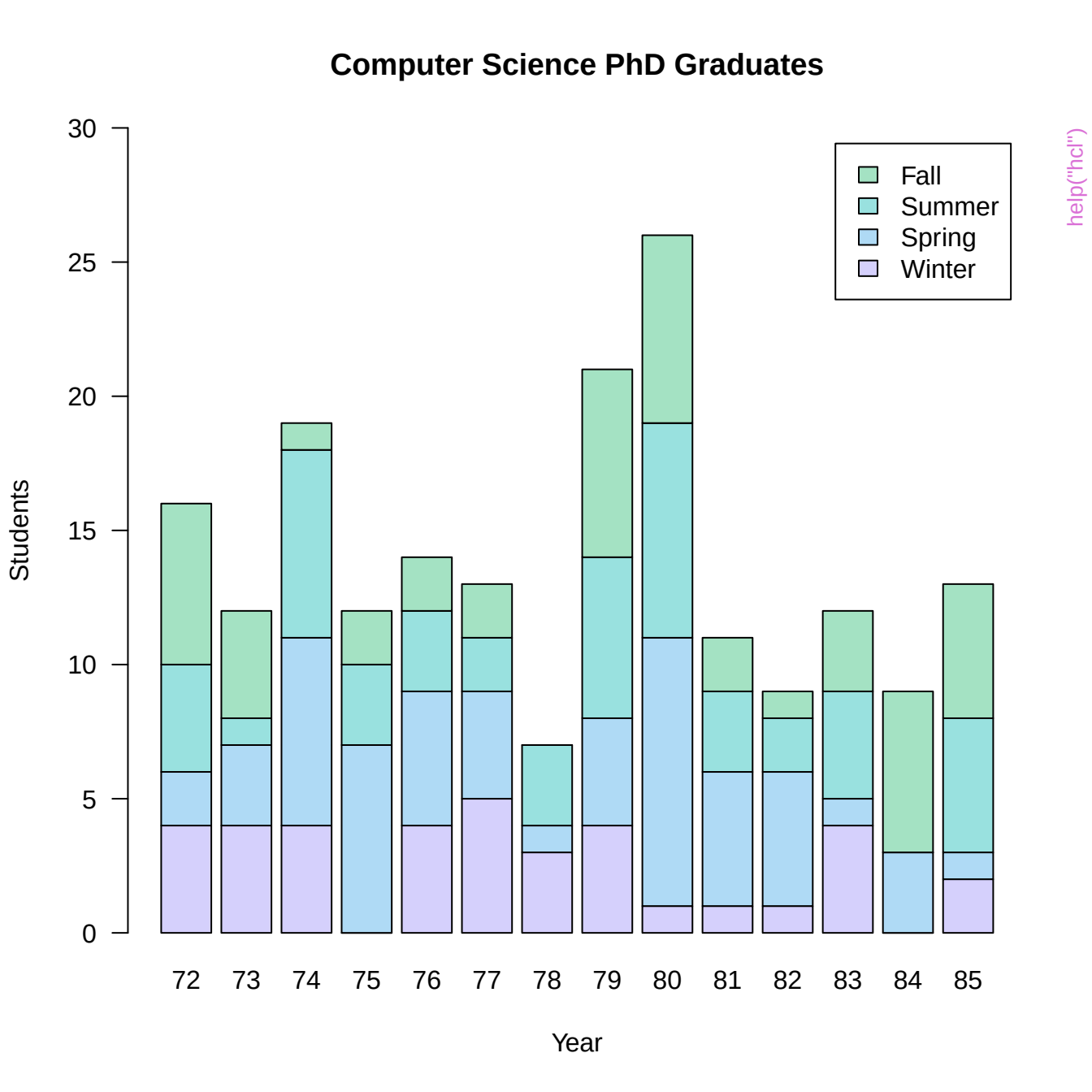
80
81
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
0
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30
72
73
74
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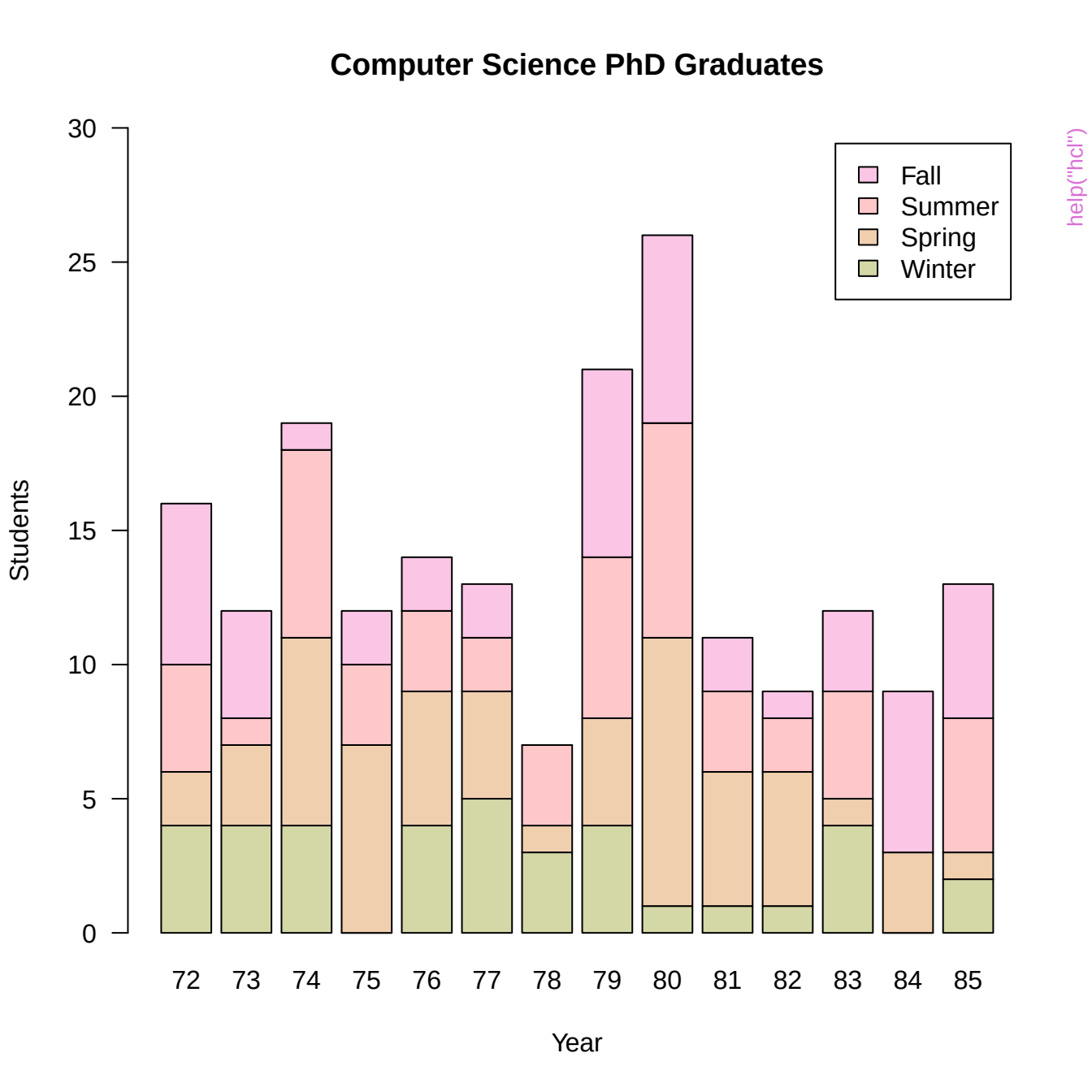
82
83
84
85
help("hcl")


Computer Science PhD Graduates
Students
Year
Fall
Summer
Spring
Winter
0
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25
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72
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74
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78
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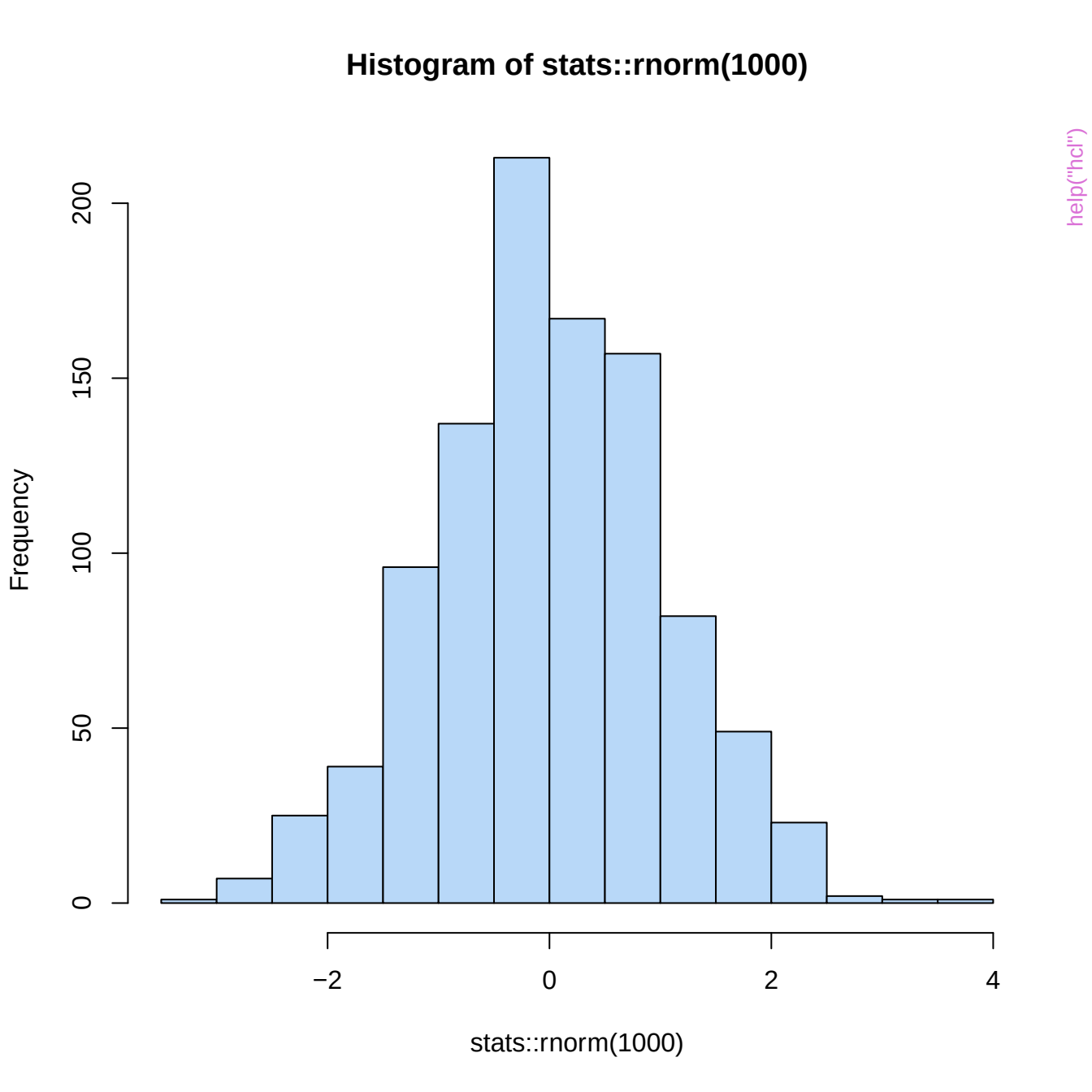
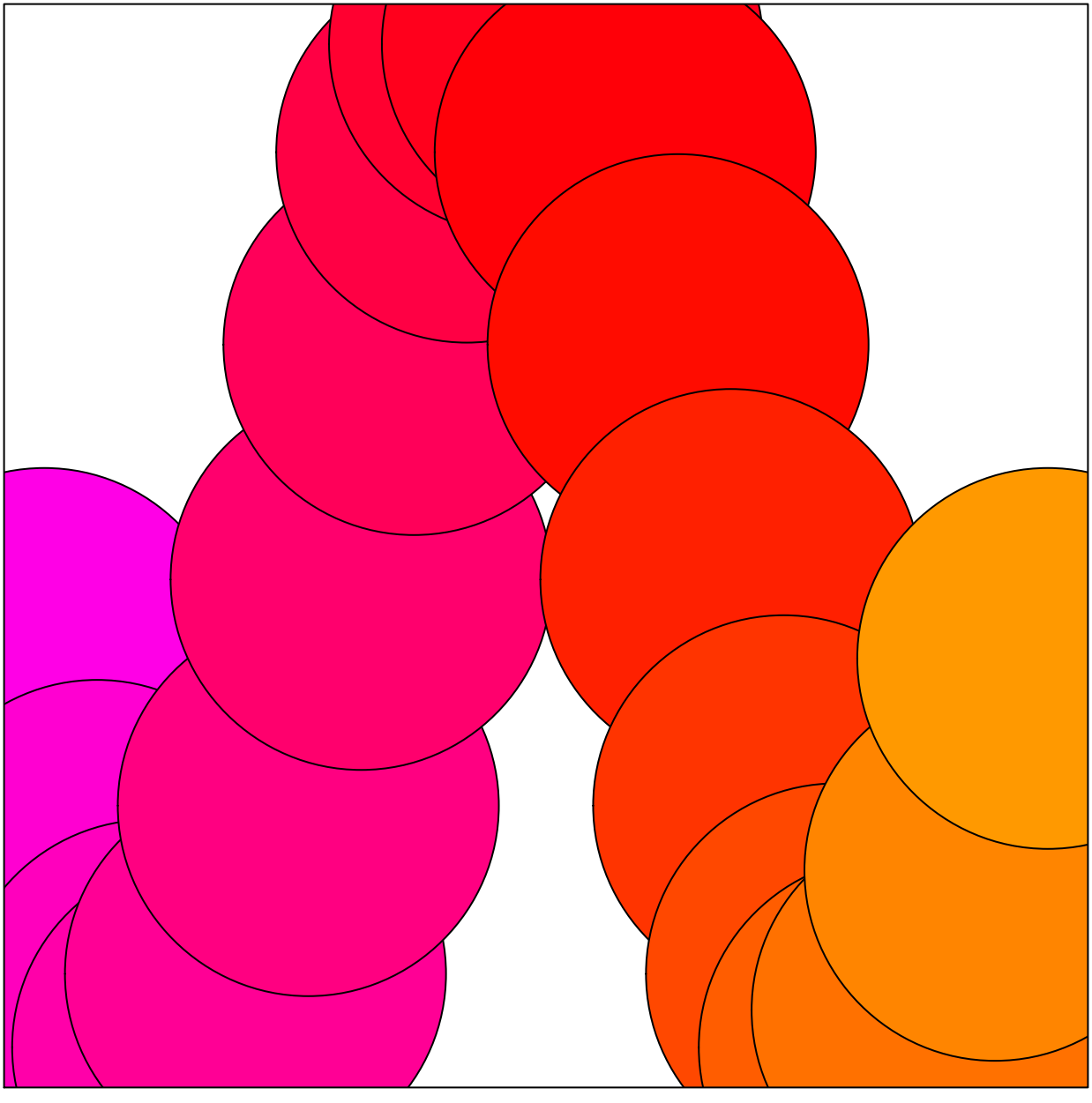
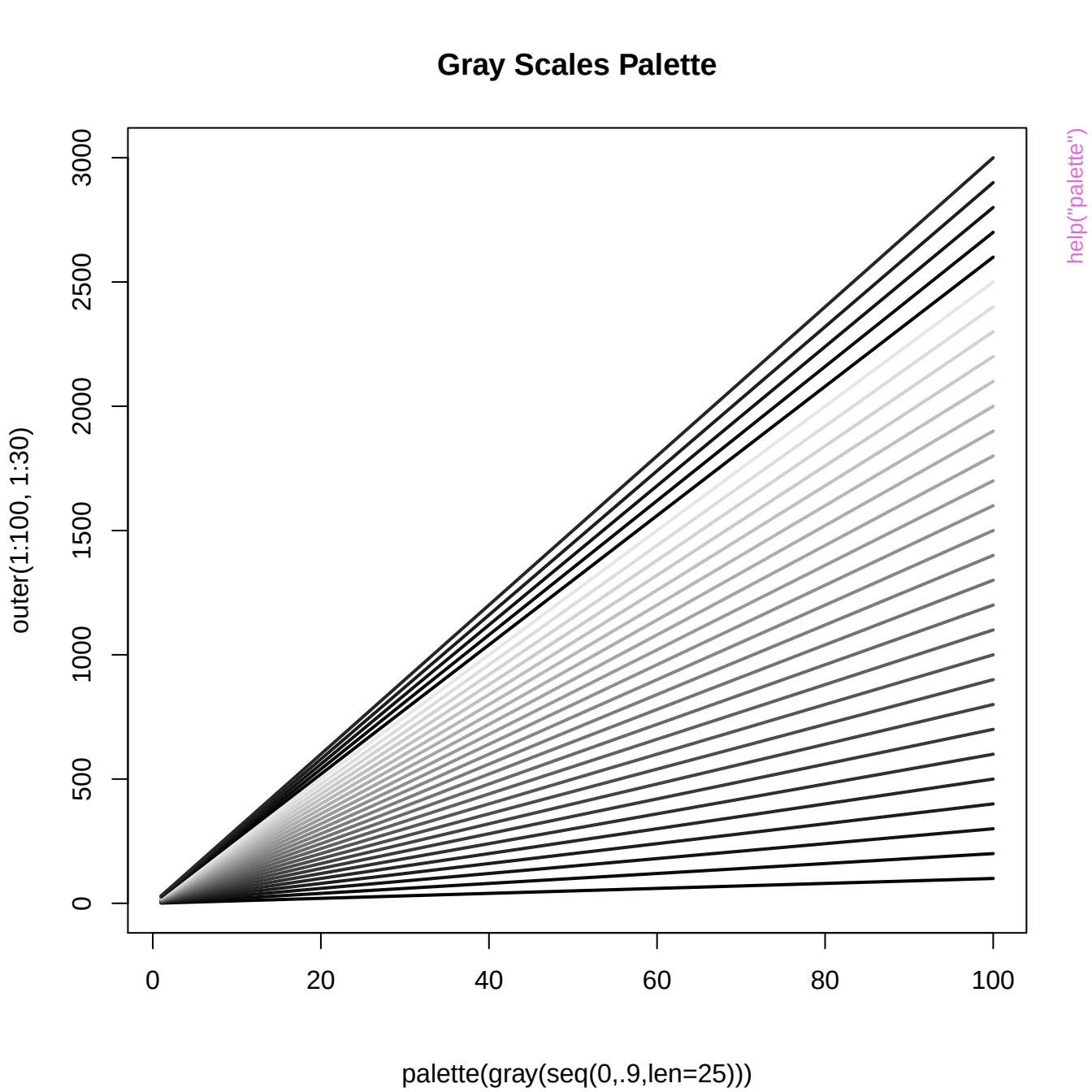
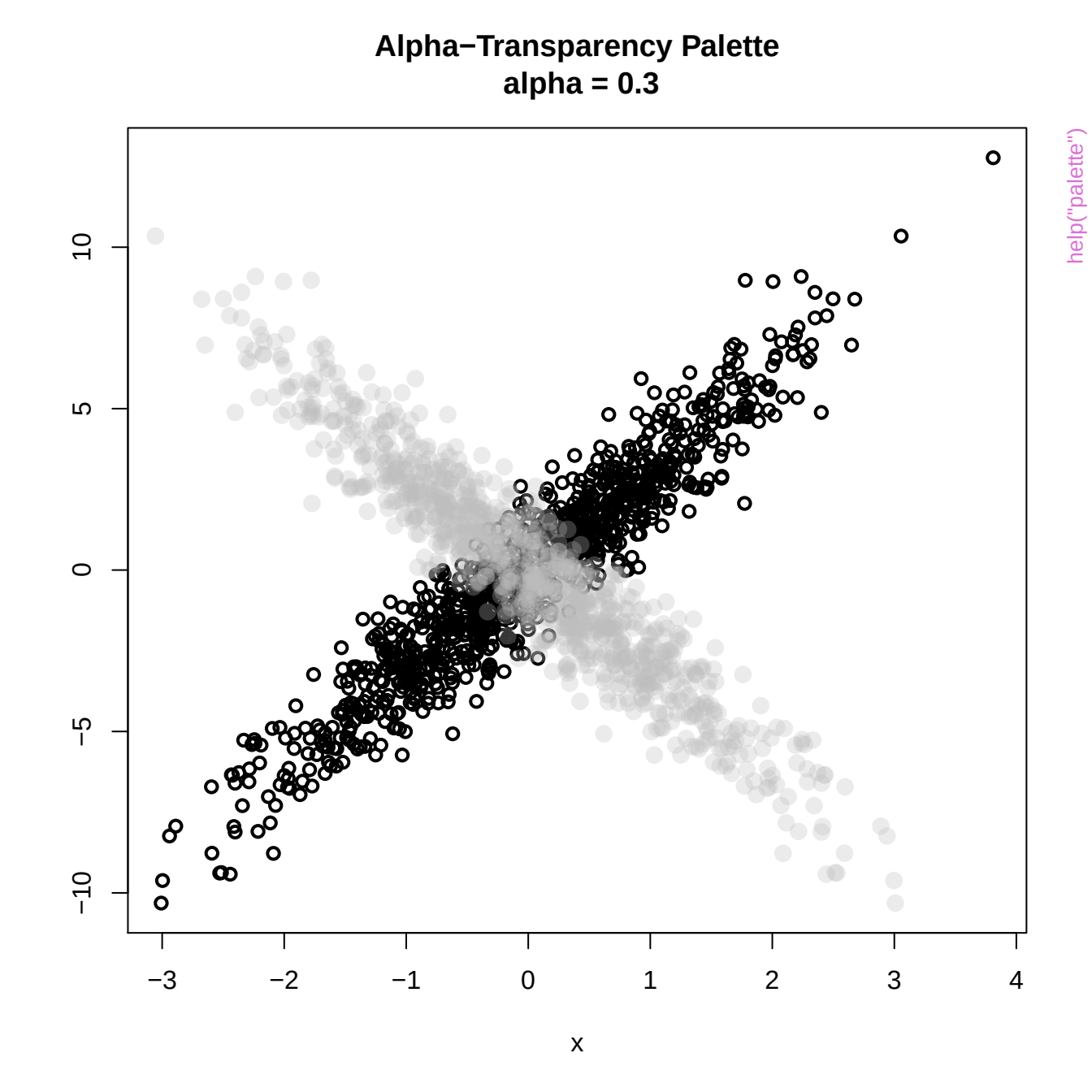
80
81
82
83
84
85
help("hcl")

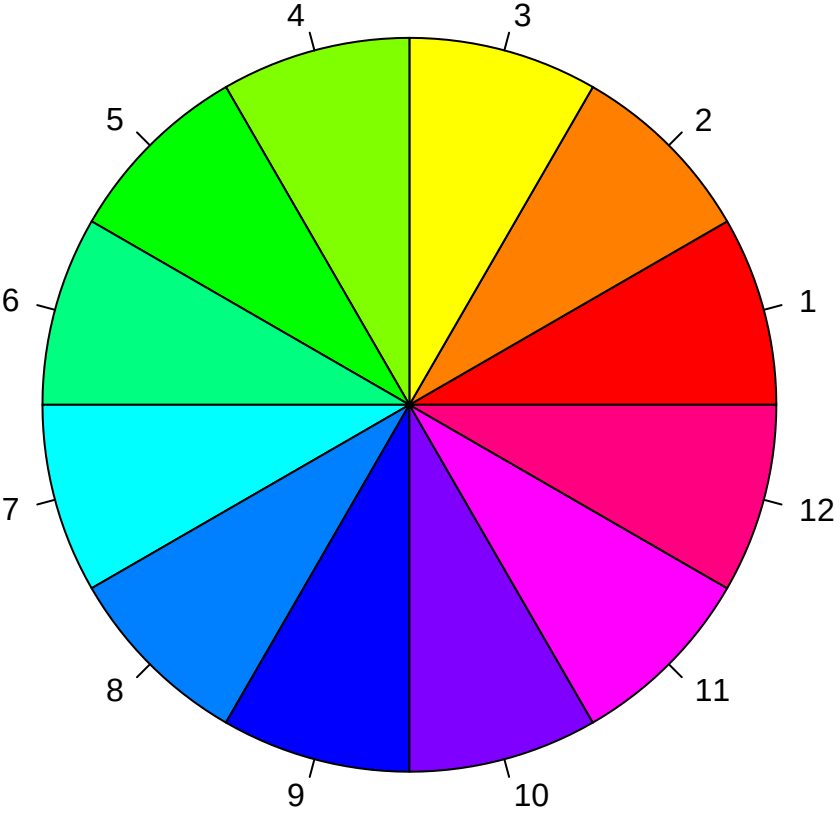

Histogram of stats::rnorm(1000)
Frequency
0
50
100
150
200
−2
0
2
4
stats::rnorm(1000)
help("hcl")


Red tones
help("hsv")

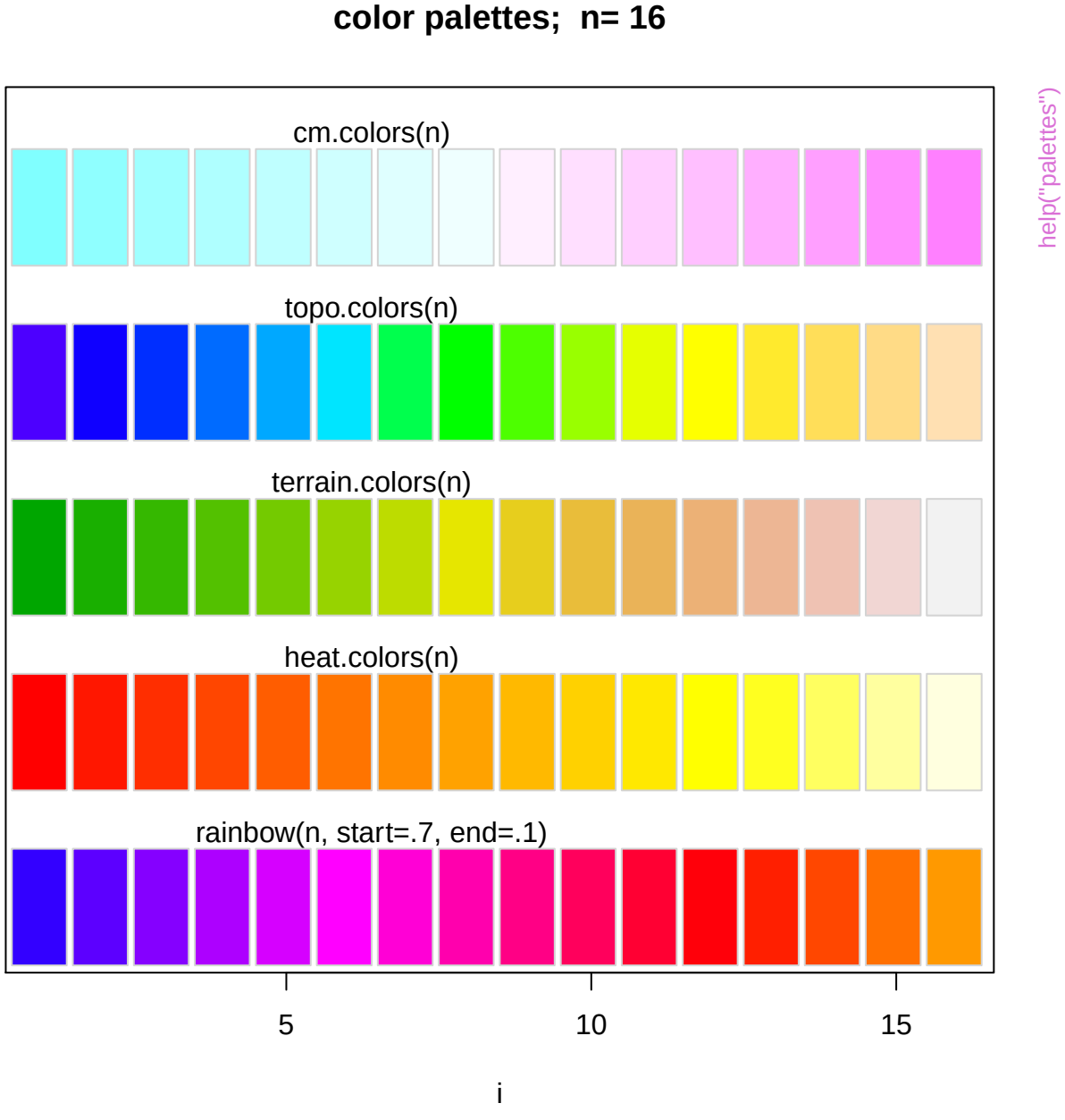
help("n2mfrow")

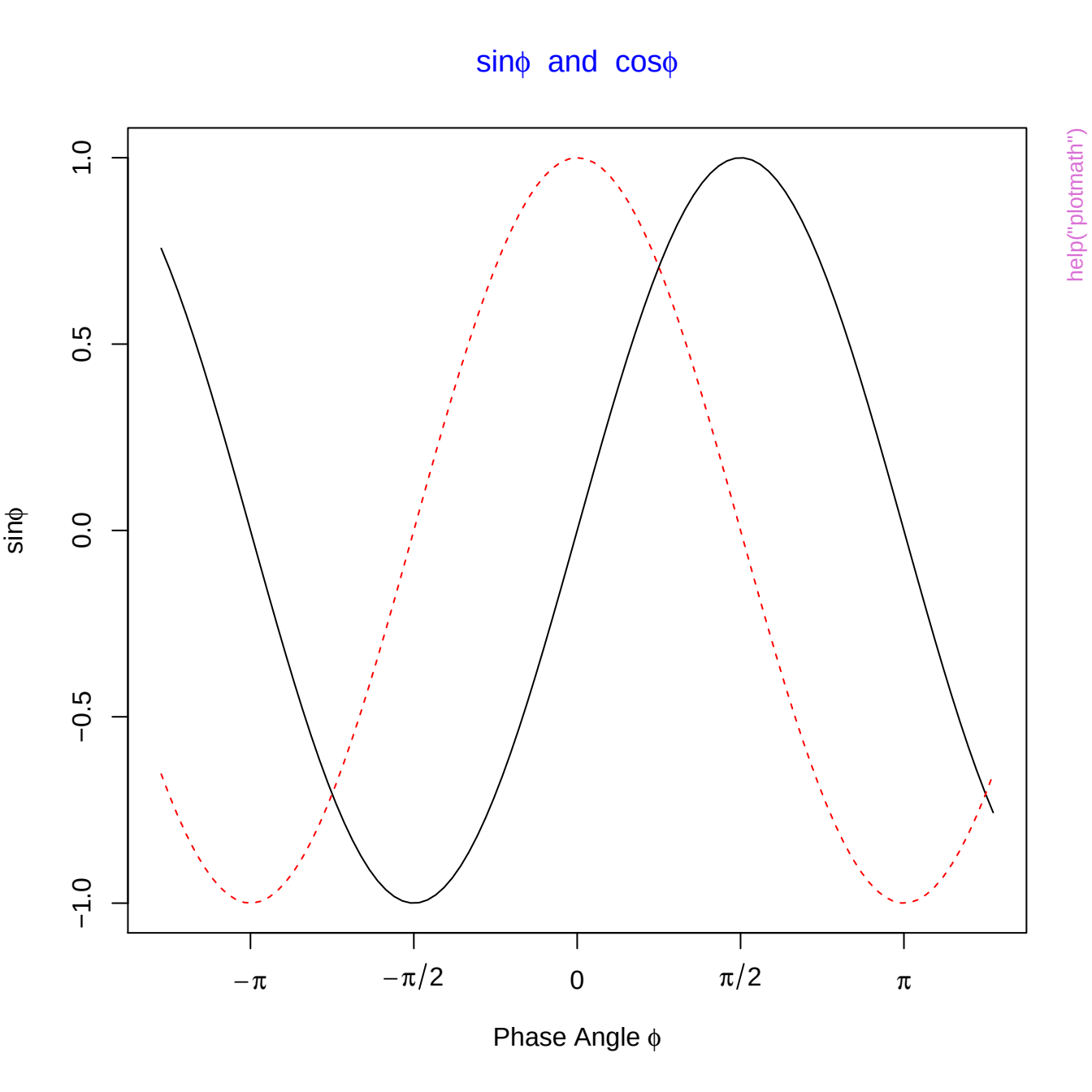

Gray Scales Palette
outer(1:100, 1:30)
0
500
1000
1500
2000
2500
3000
0
20
40
60
80
100
palette(gray(seq(0,.9,len=25)))
help("palette")

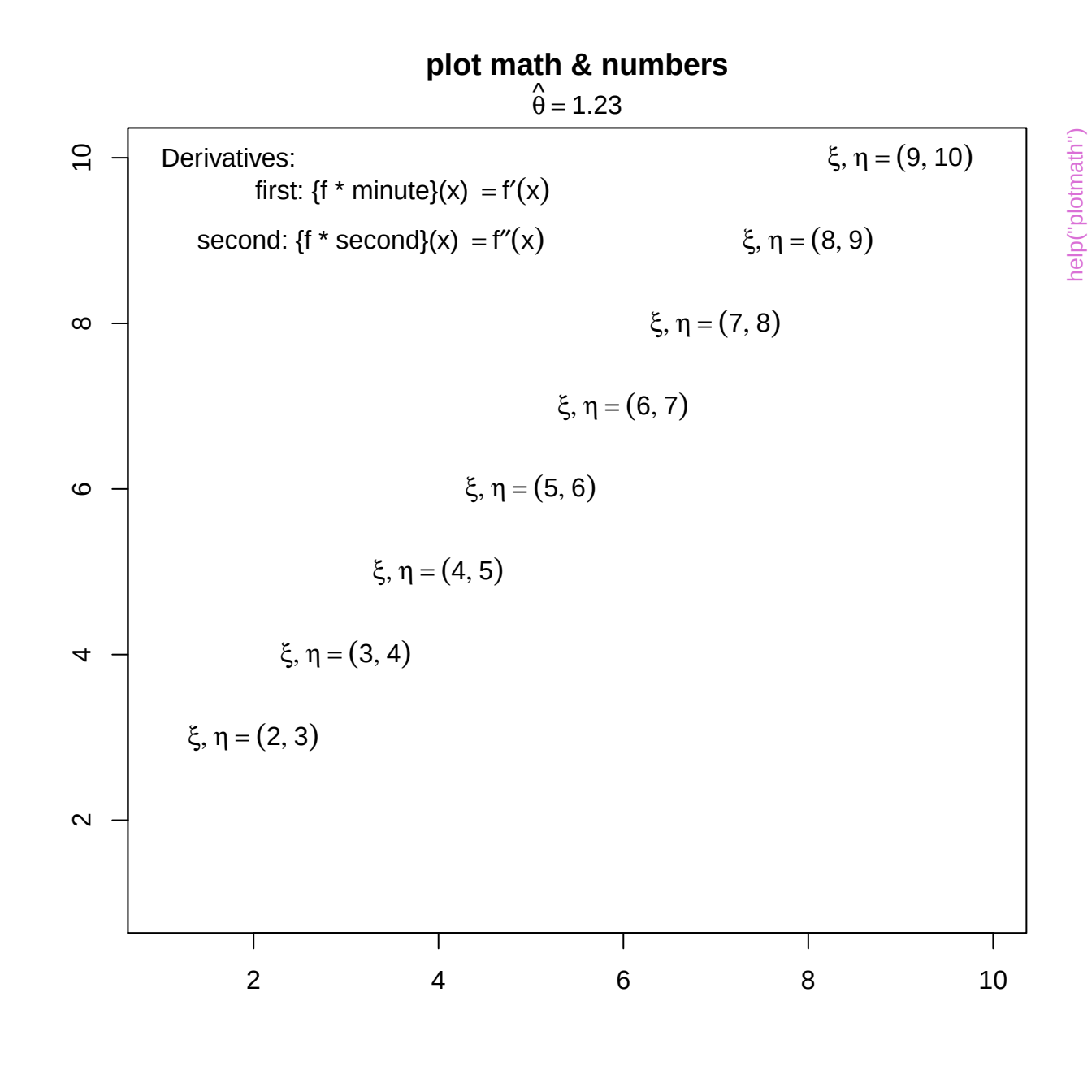

Alpha−Transparency Palette
alpha = 0.3
help("palette")
10
5
0
−5
−10
−3
−2
−1
0
1
2
3
4
x

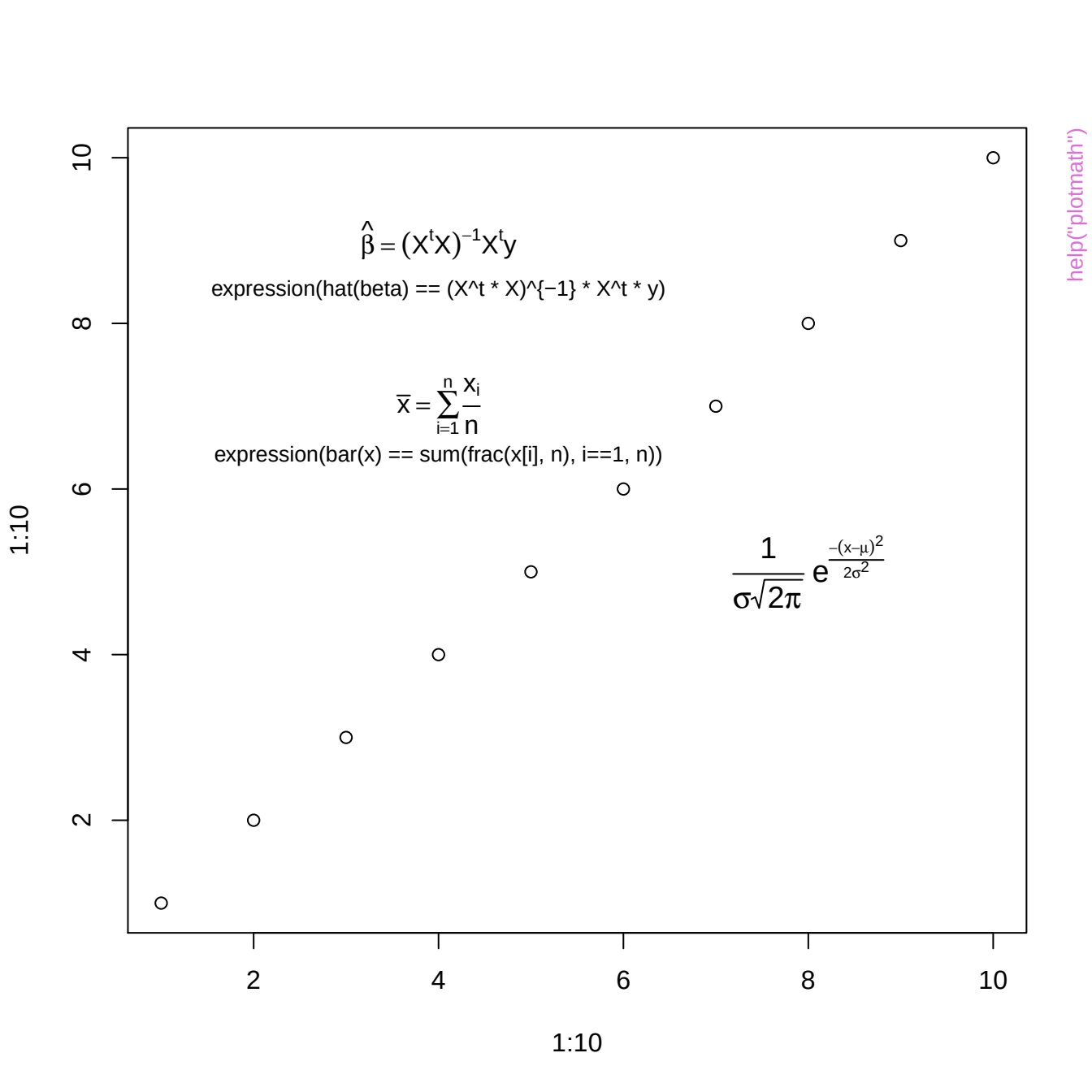


help("palettes")


color palettes; n= 16
cm.colors(n)
topo.colors(n)
terrain.colors(n)
heat.colors(n)
rainbow(n, start=.7, end=.1)
5
10
15
i
help("palettes")


sinϕ and cosϕ
help("plotmath")
1.0
0.5
0.0
−0.5
−1.0
sinϕ
−π
−π/2
0
π/2
π
Phase Angle ϕ


plot math & numbers
$\hat{\theta} = 1.23$
Derivatives:
first: {f * minute}(x) = f′(x)
second: {f * second}(x) = f″(x)
ξ, η = (9, 10)
ξ, η = (8, 9)
ξ, η = (7, 8)
ξ, η = (6, 7)
ξ, η = (5, 6)
ξ, η = (4, 5)
ξ, η = (3, 4)
ξ, η = (2, 3)
2
4
6
8
10
help("plotmath")


$\hat{\beta} = (X^t X)^{-1} X^t y$
expression(hat(beta) == (X^t * X)^{−1} * X^t * y)
$\bar{x} = \sum_{i=1}^{n} \frac{x_i}{n}$
expression(bar(x) == sum(frac(x[i], n), i==1, n))
$\frac{1}{\sigma\sqrt{2\pi}} e^{\frac{-(x-\mu)^2}{2\sigma^2}}$
1:10
1:10
2
4
6
8
10
help("plotmath")

universal	\042	∀
existential	\044	∃
suchthat	\047	∍
therefore	\134	∴
perpendicular	\136	⊥
circlemultiply	\304	⊗
circleplus	\305	⊕
emptyset	\306	∅
angle	\320	∠
leftangle	\341	⟨
rightangle	\361	⟩

1:10
Index
2
4
6
8
10
help("recordGraphics")