

## example(Japanese)

Japan

English

日本

Kanji

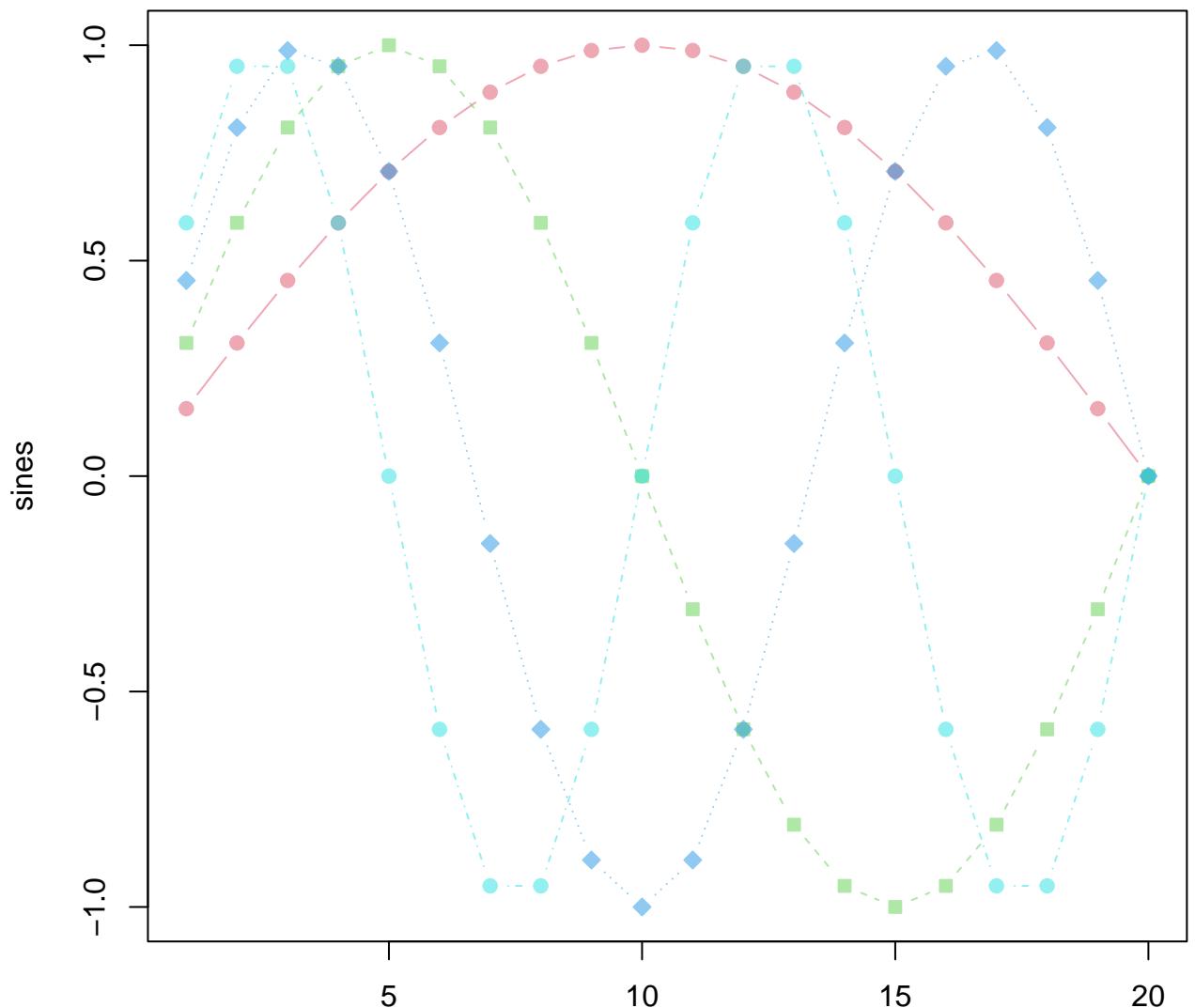
ジャパン

Katakana

にほん

Hiragana

## Using an 'opaque ('translucent') color palette

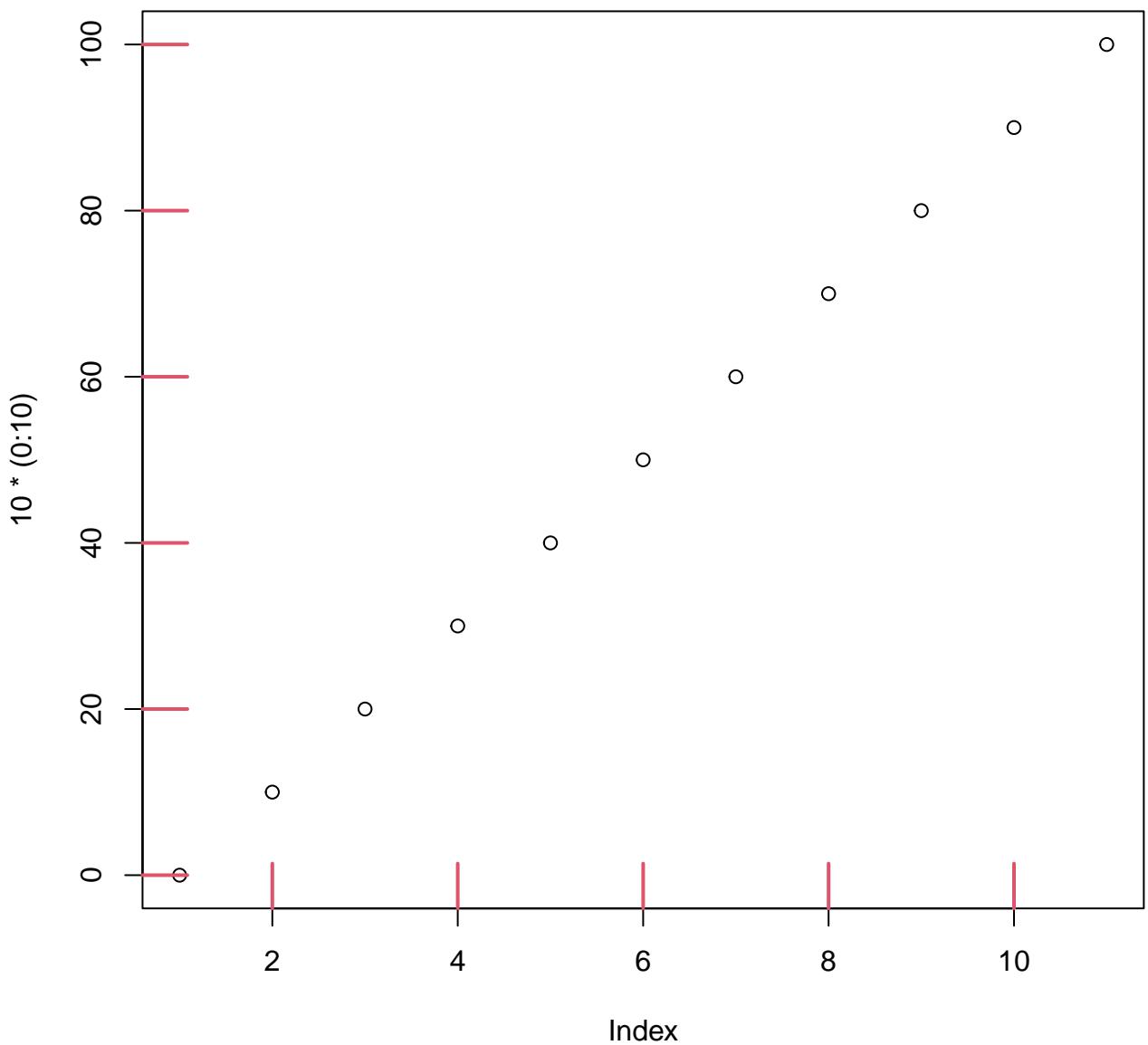


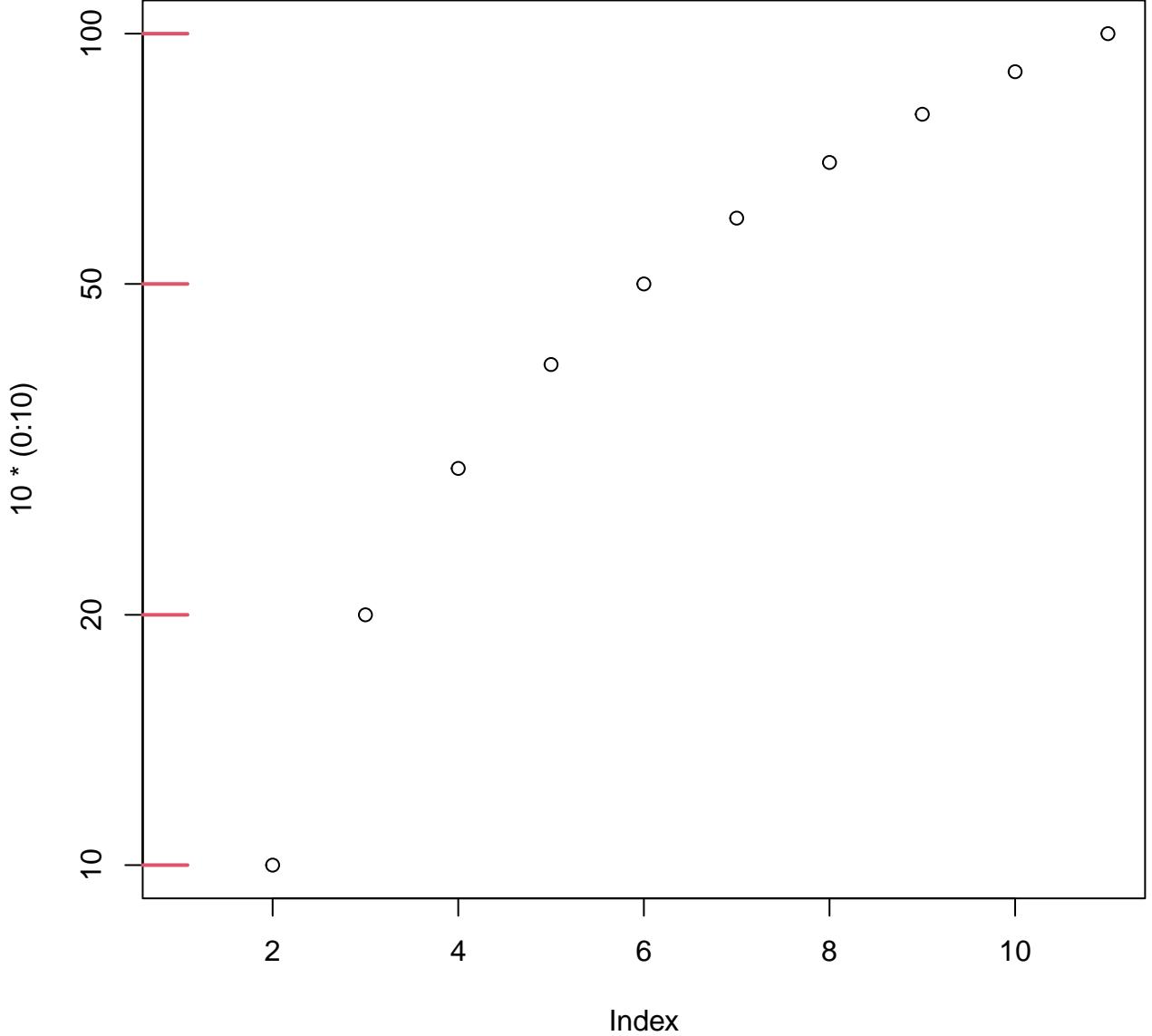
help("adjustcolor")

`adjustcolor() -> translucent`

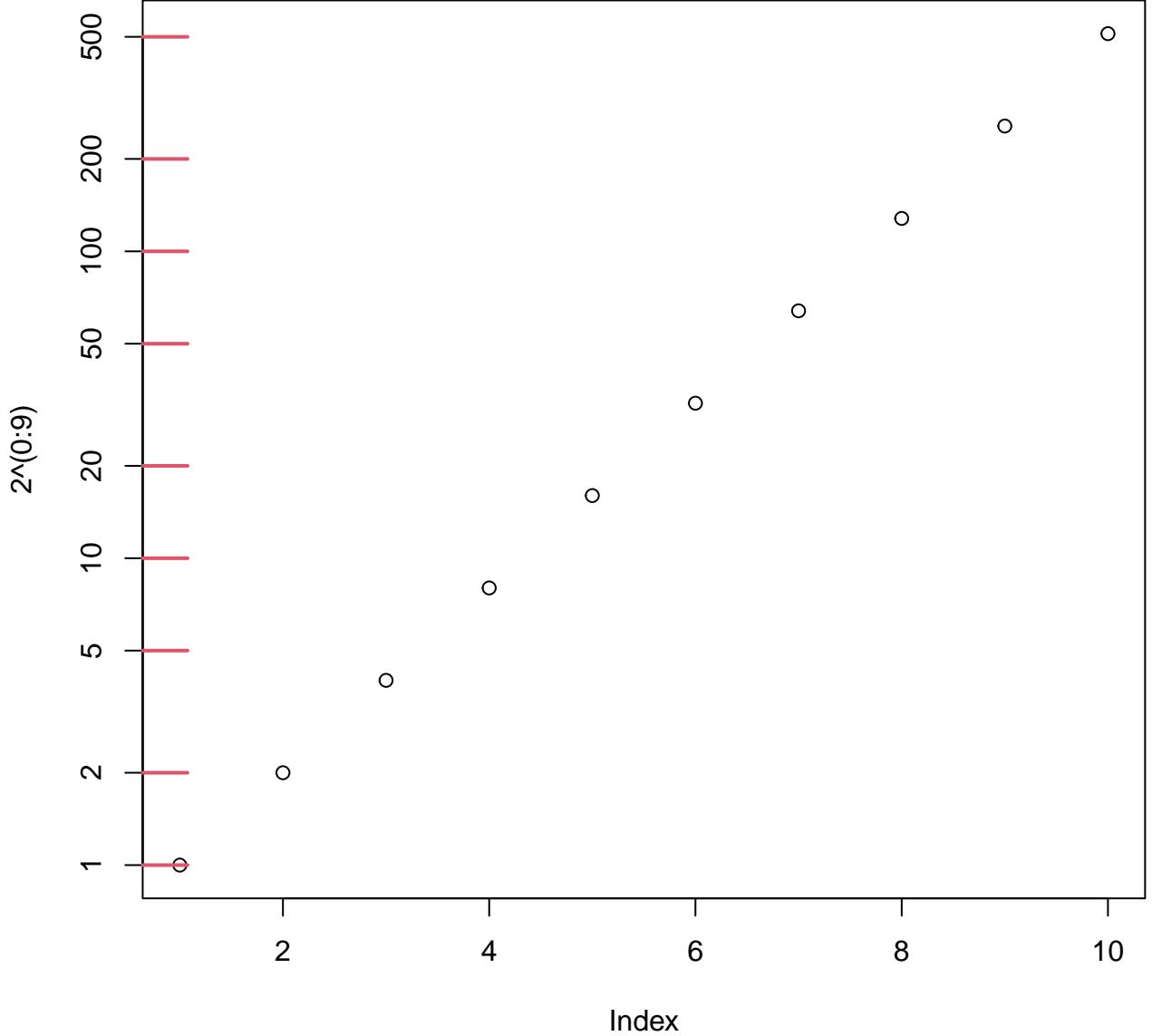


help("axisTicks")

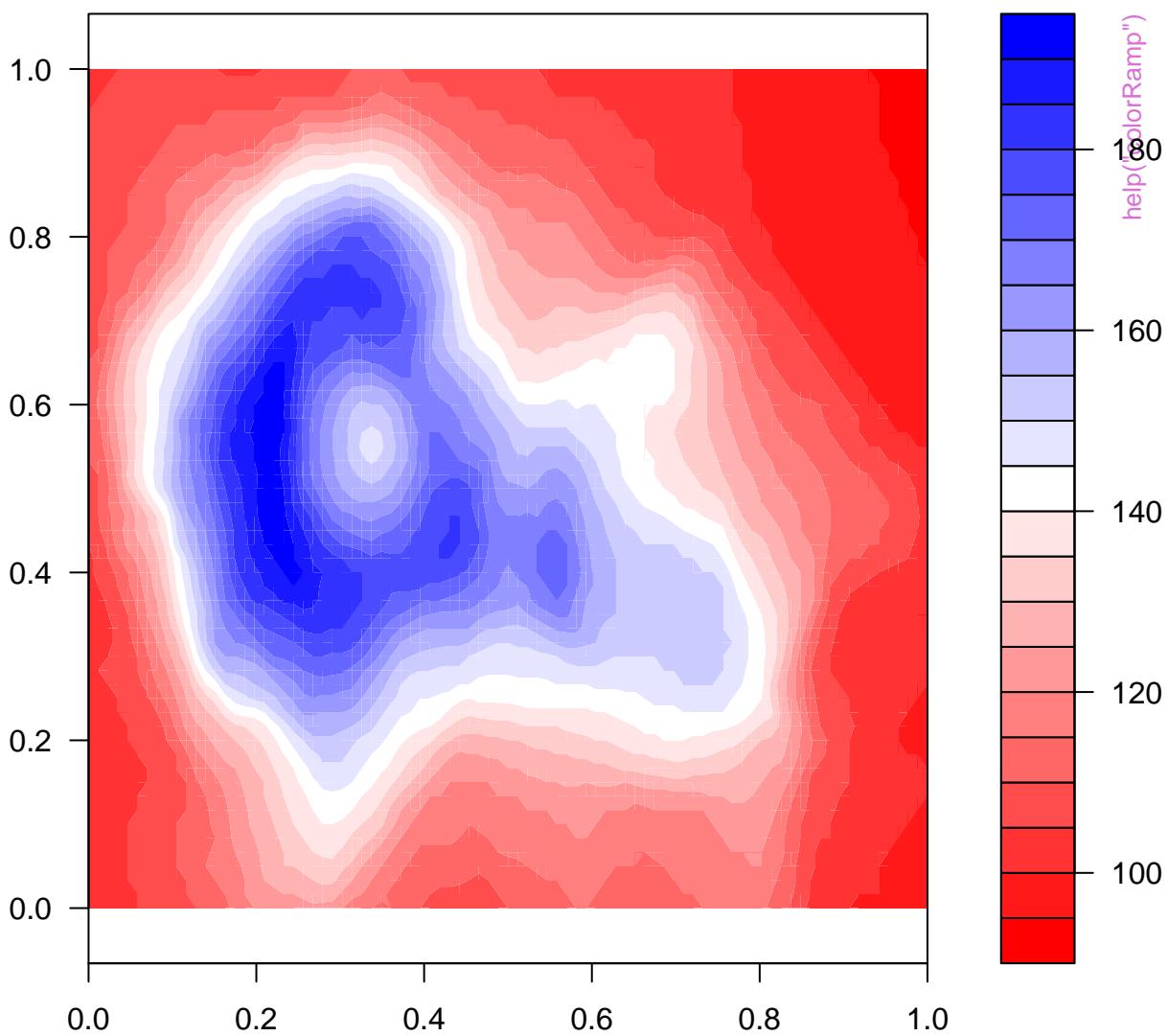


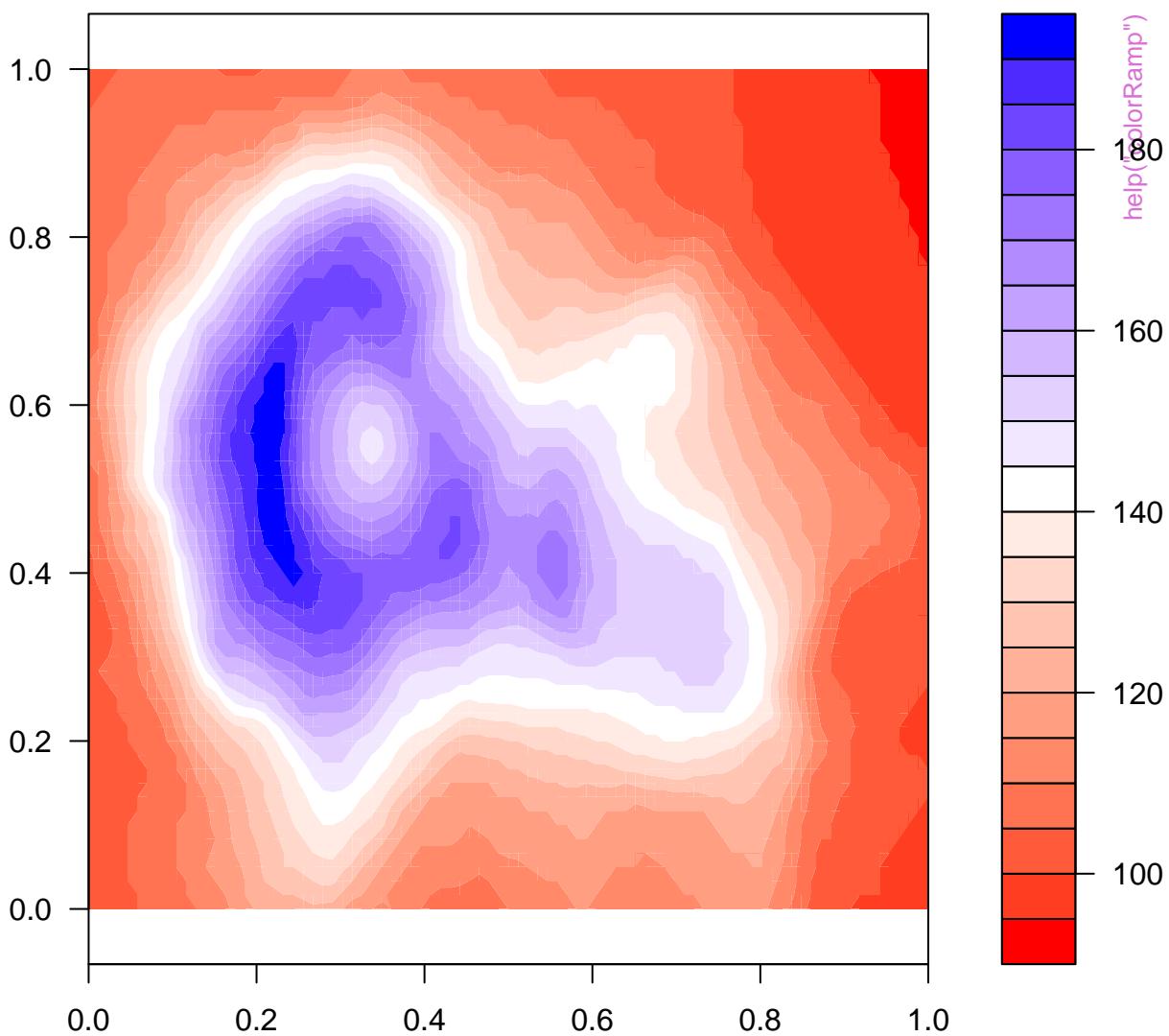


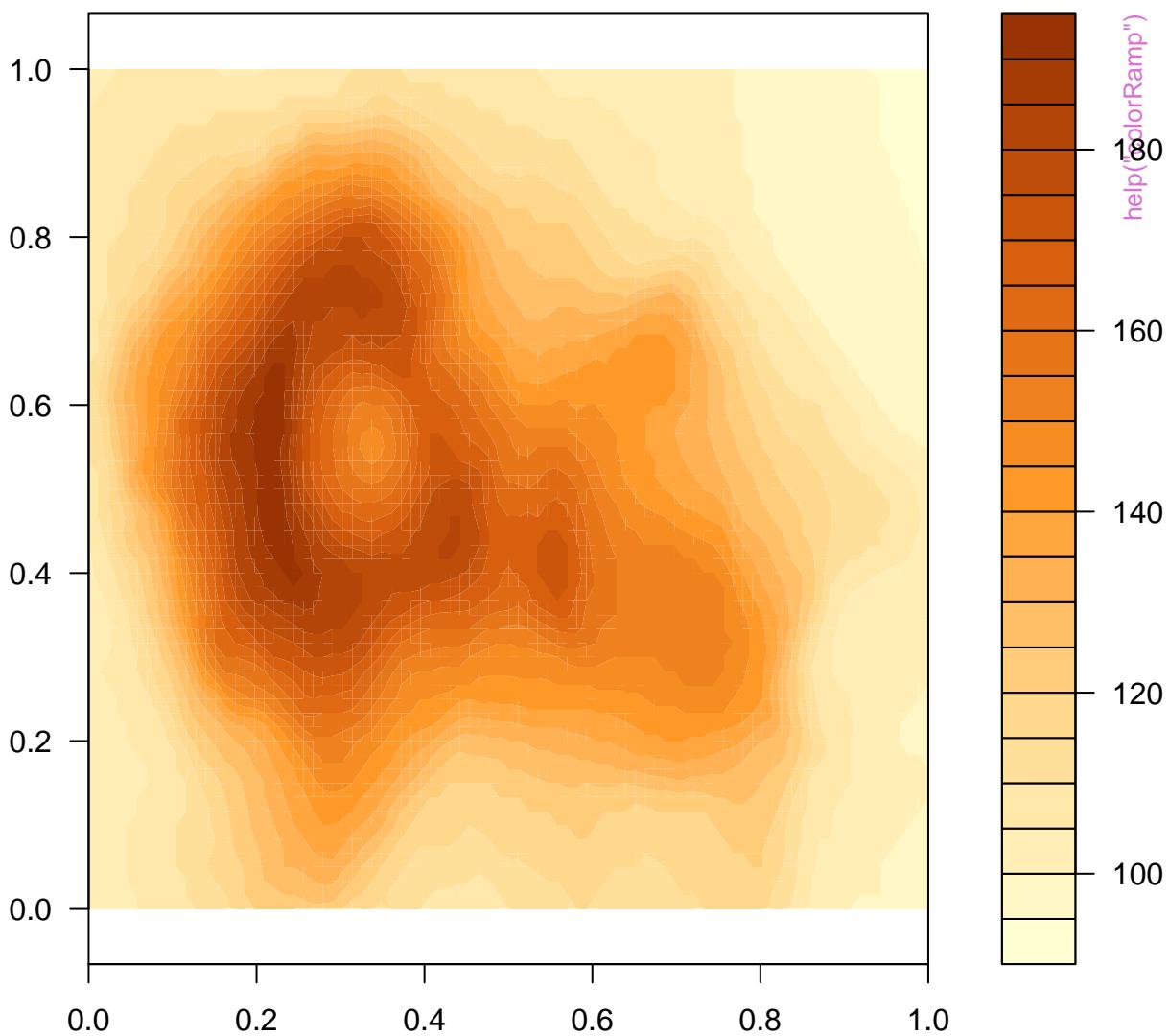
help("axisTicks")

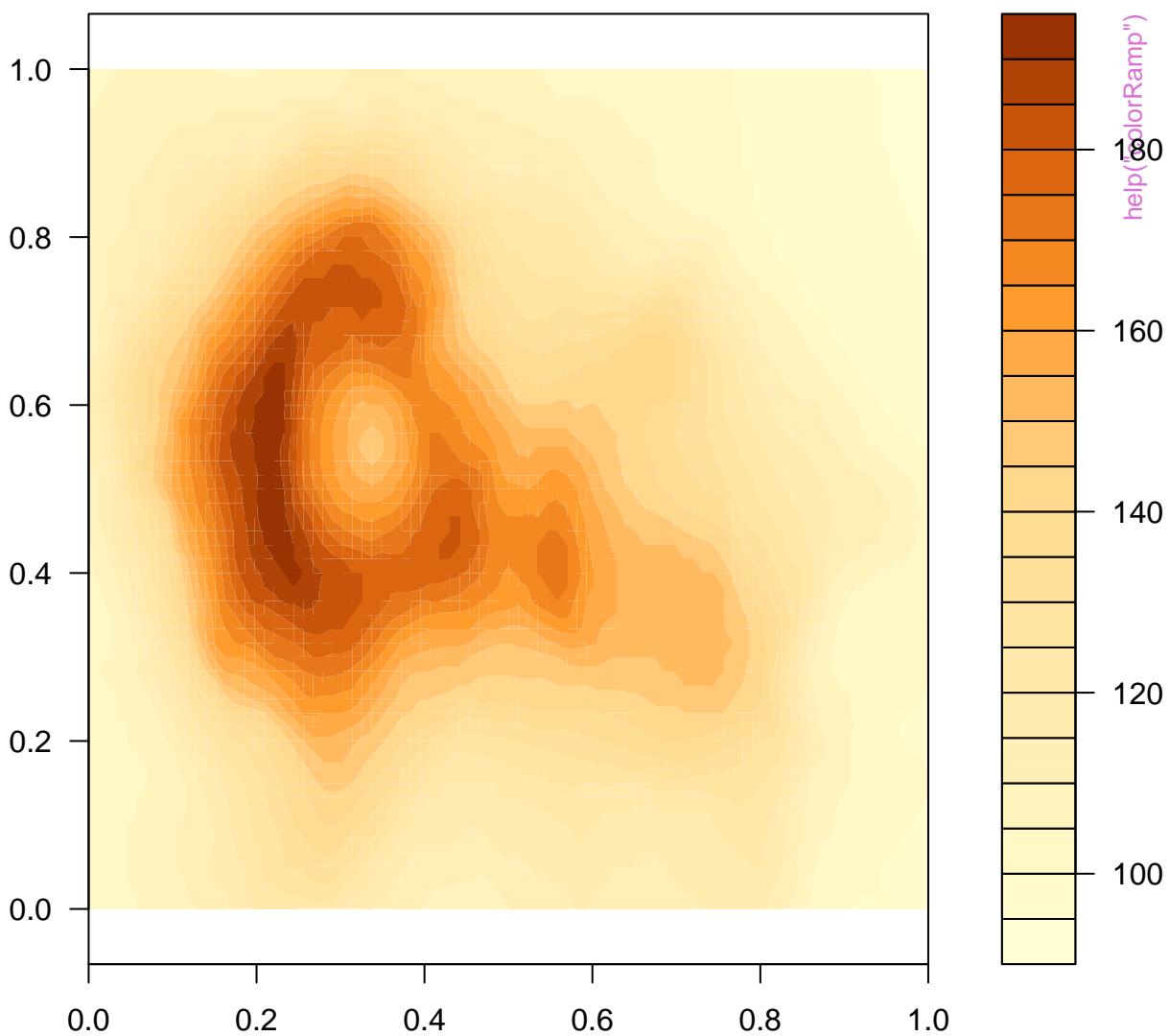


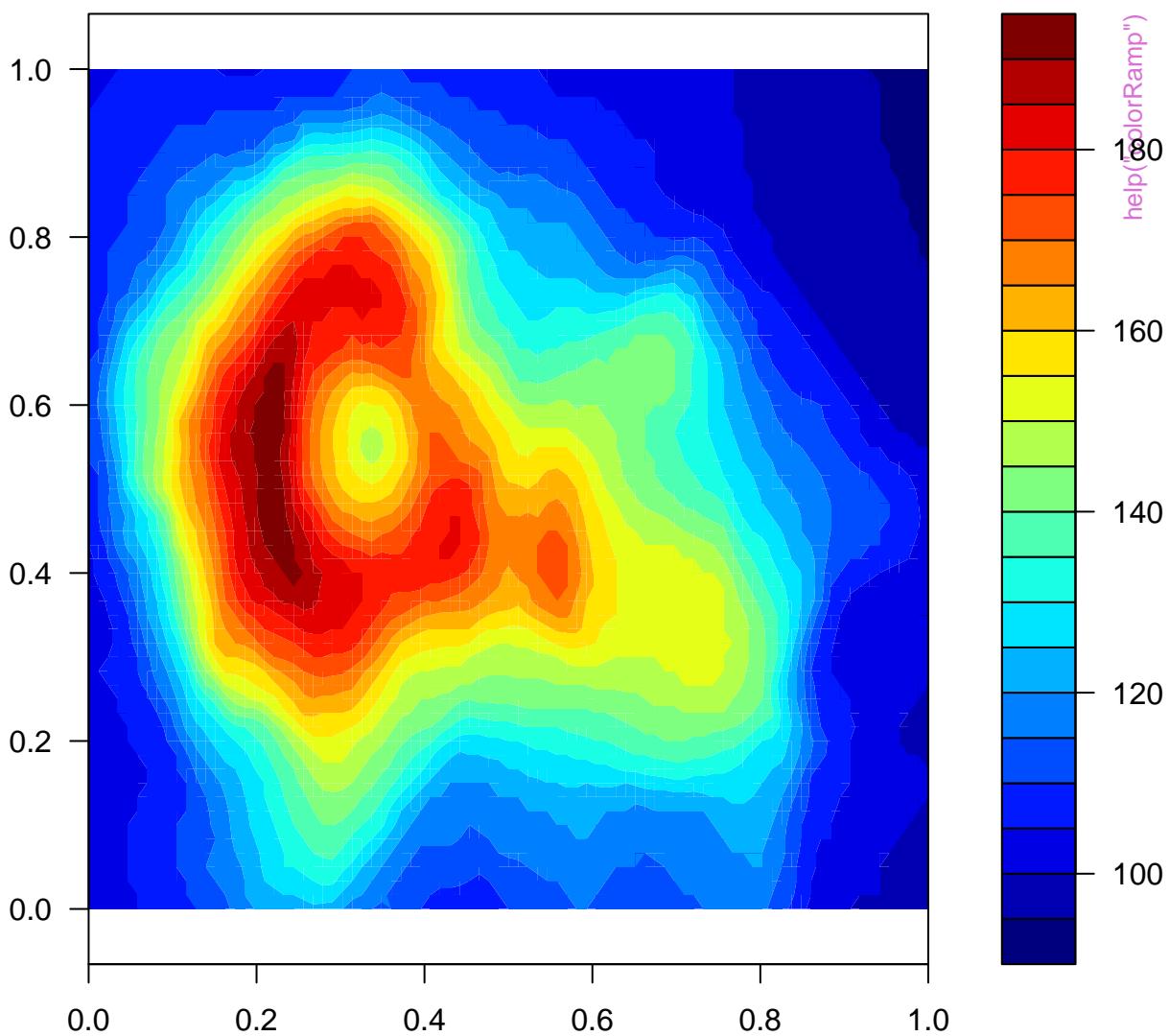
help("axisTicks")

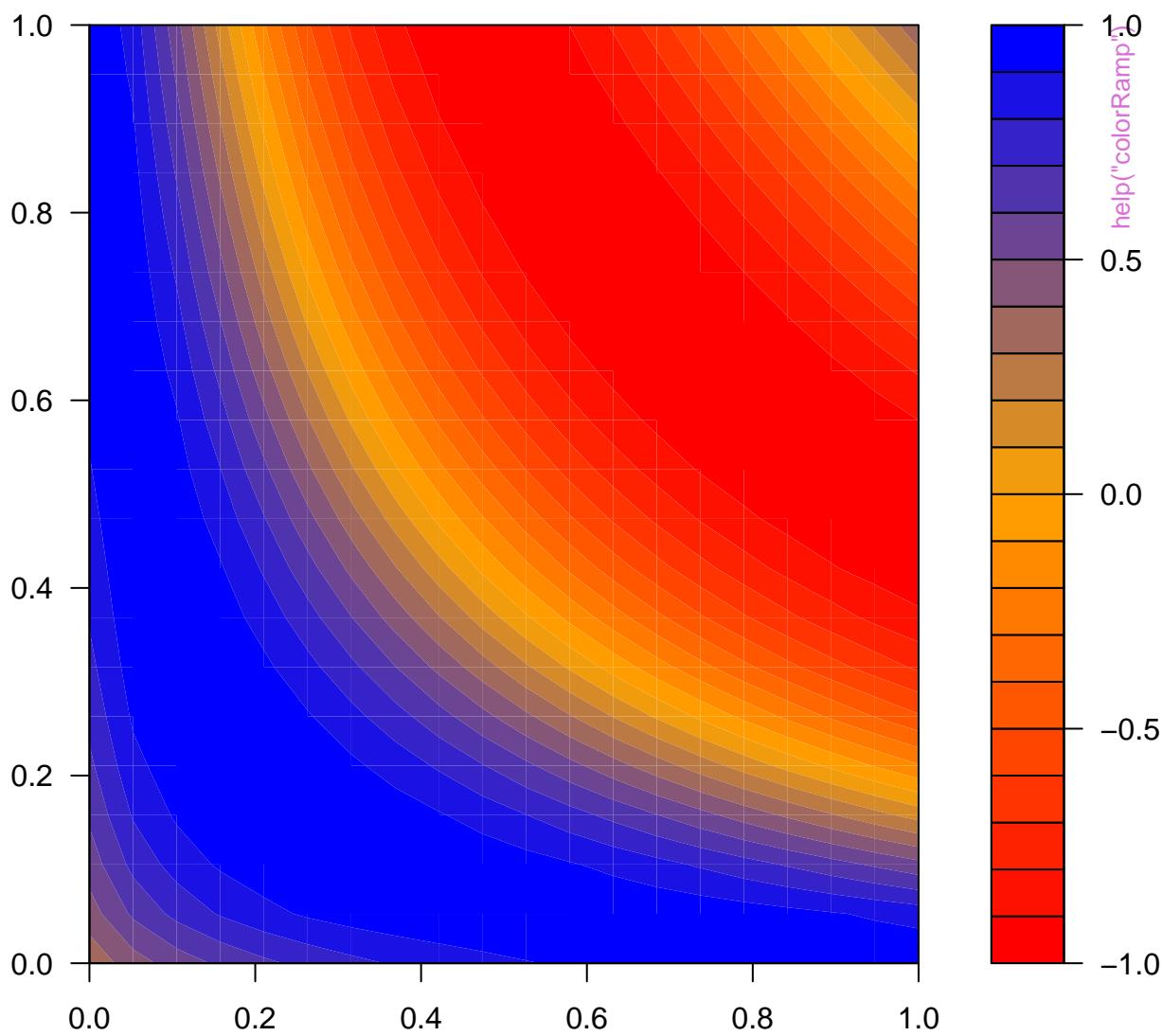


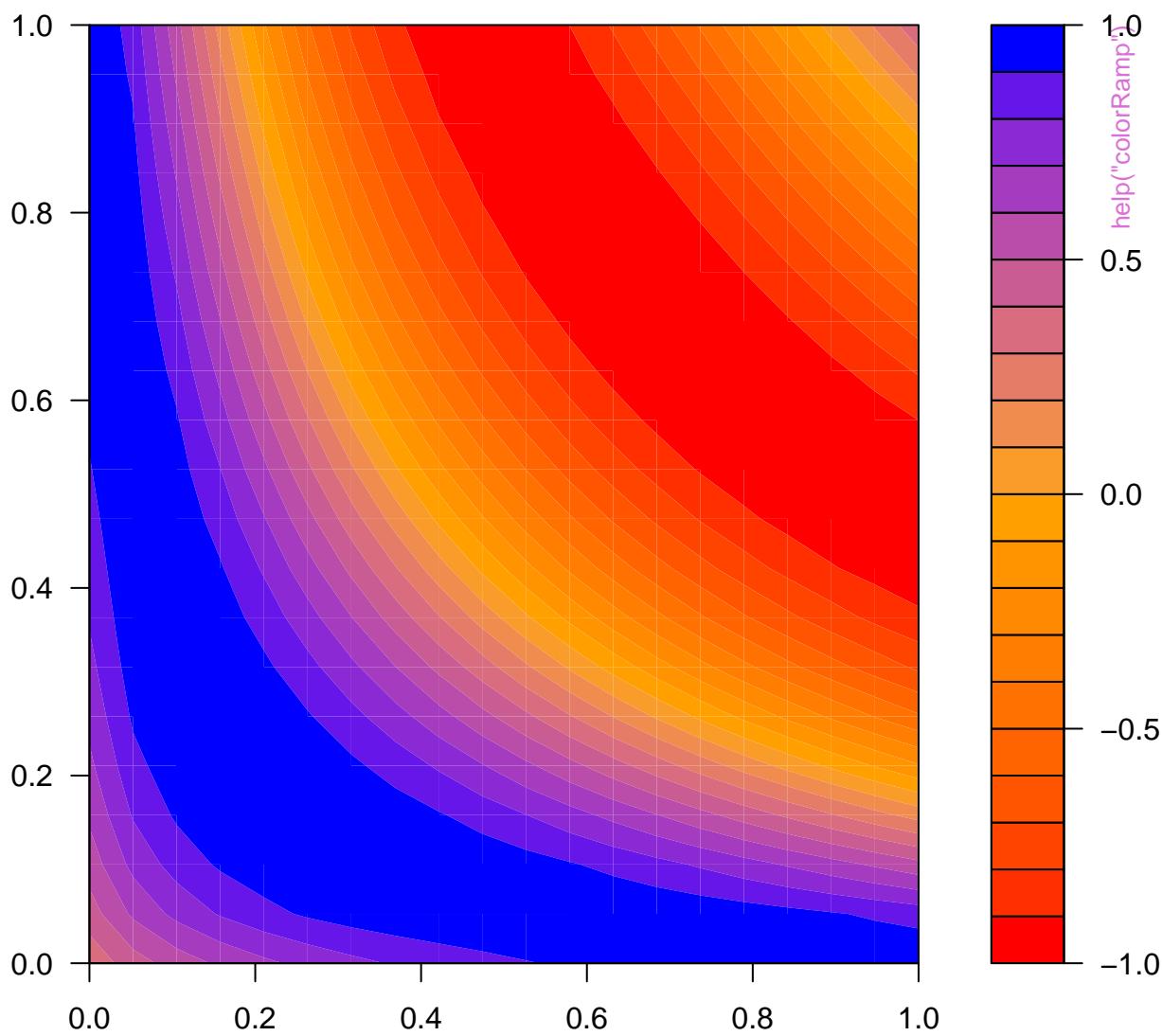












1.0

0.5

0.0

-0.5

-1.0







help("colors")

#CC8C3C	chocolate2	chocolate3	chocolate4	darkorange	darkorange1	darkorange2
arkgoldenrod	darkgoldenrod	orange	orange1	sandybrown	tan1	tan2

help("colors")

deepskyblue

deepskyblue2

turquoise2

darkturquoise

cyan2

```
help("colors")
```

deepskyblue

turquoise1

cyan

deepskyblue2

turquoise2

cyan2

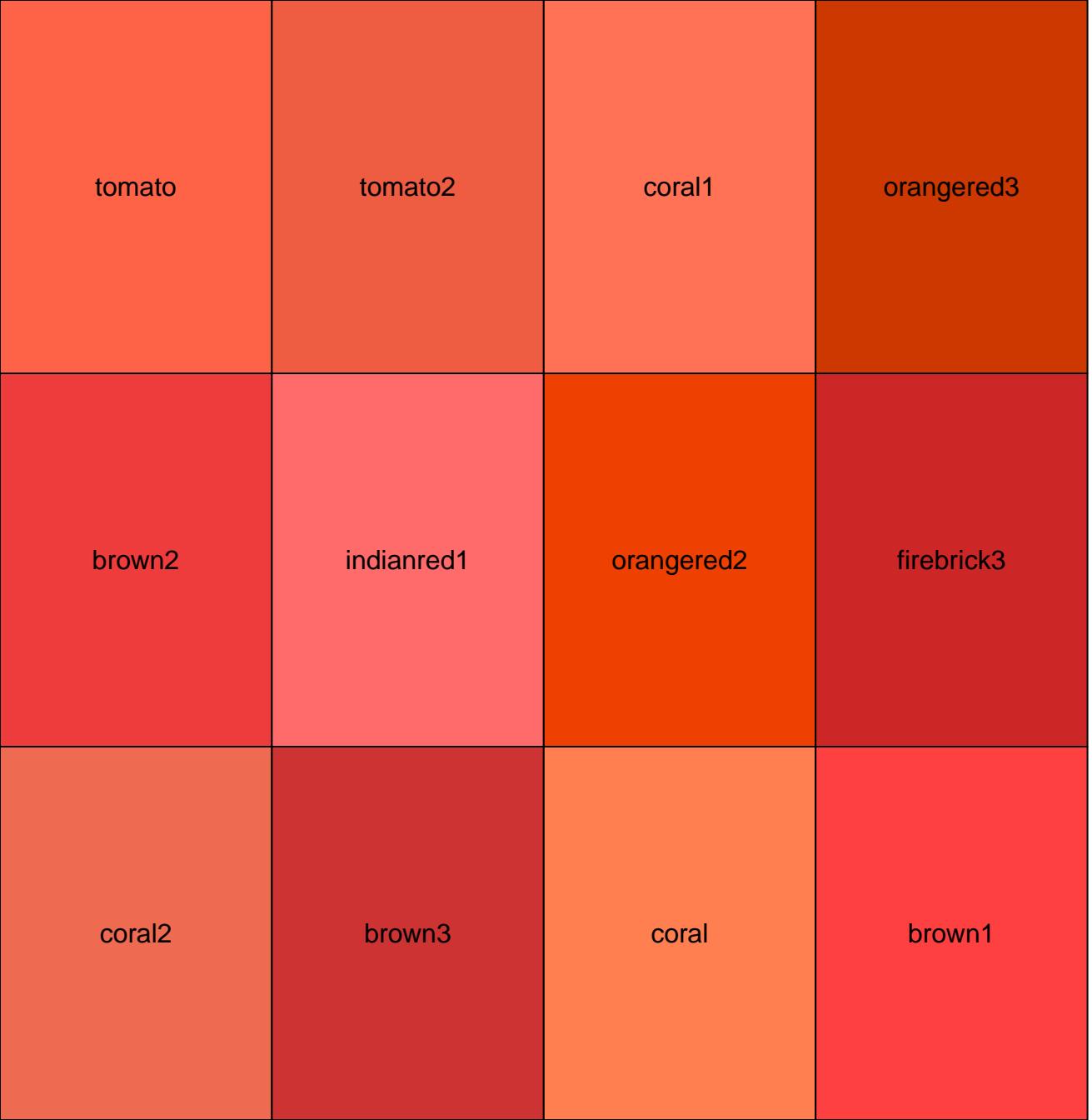
help("colors")

tomato	tomato2	coral2	coral1	sienna2
coral	sienna1	indianred2	brown1	indianred1
salmon2	chocolate1	brown2	chocolate2	NA

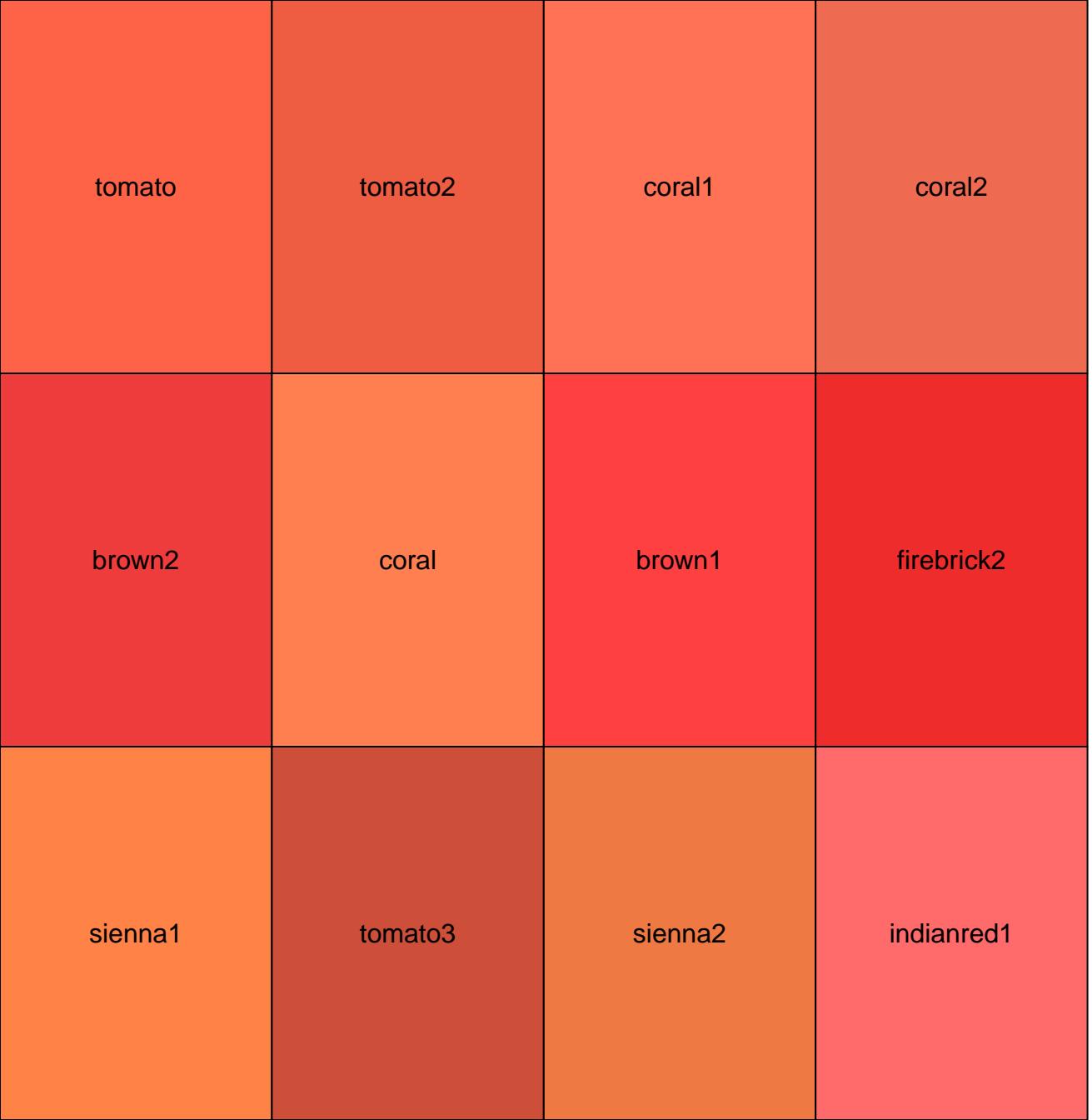
help("colors")

tomato	sienna1	brown1	coral	coral1
tan1	tomato2	sienna2	brown2	coral2
tan2	firebrick1	firebrick2	NA	NA

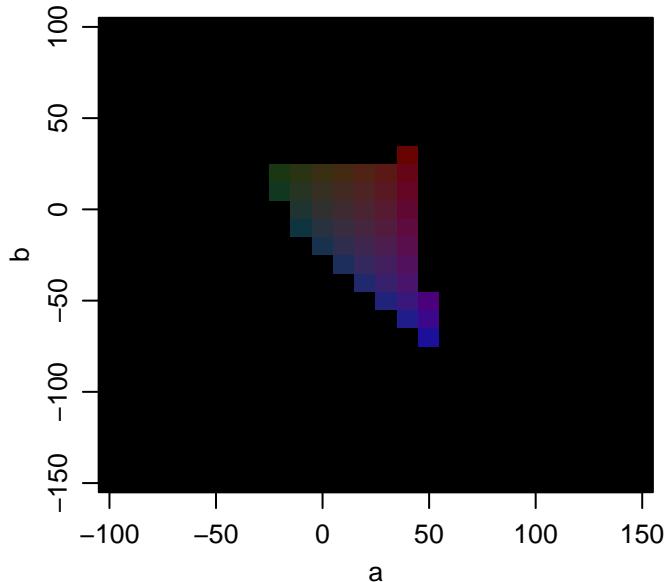
help("colors")



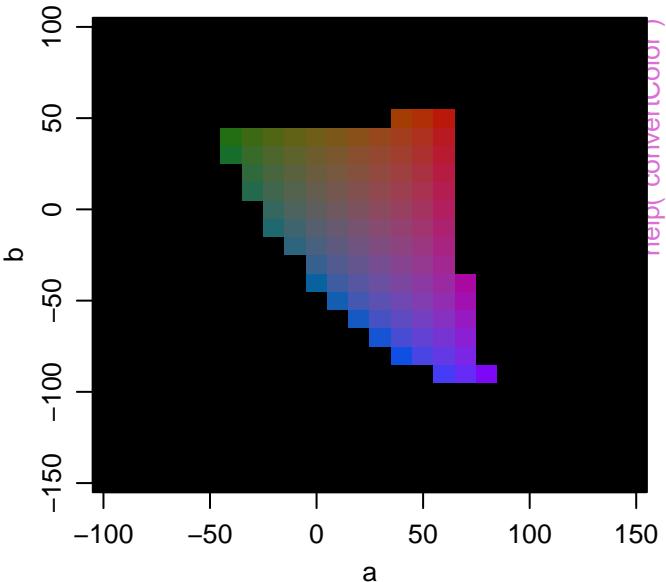
help("colors")



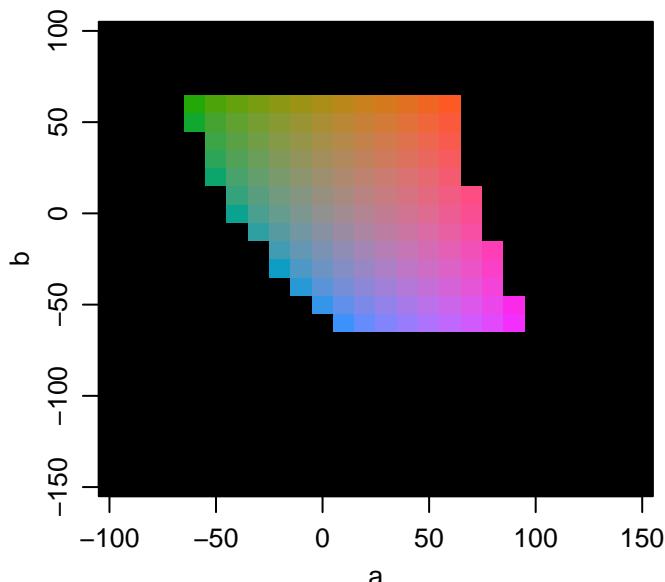
**Lab: L=20**



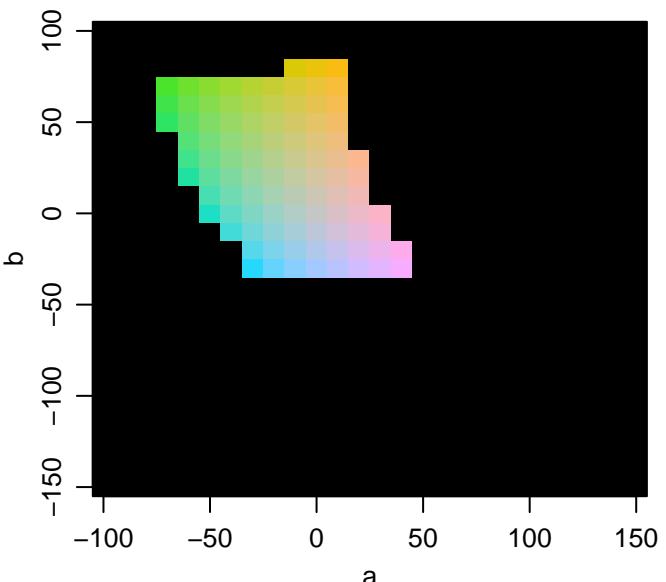
**Lab: L=40**



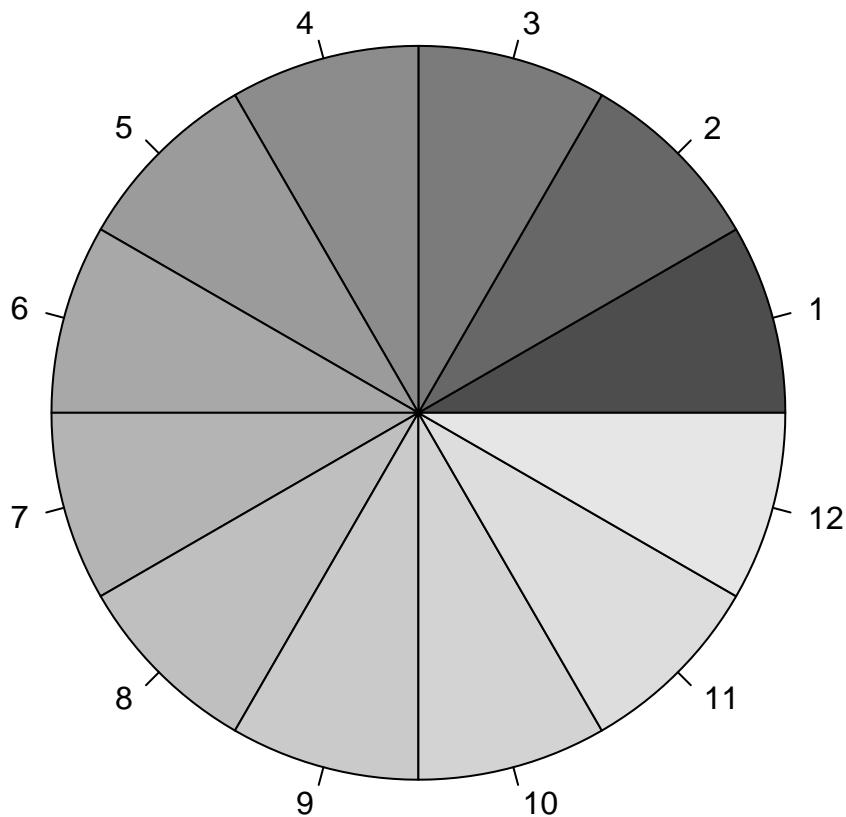
**Lab: L=60**



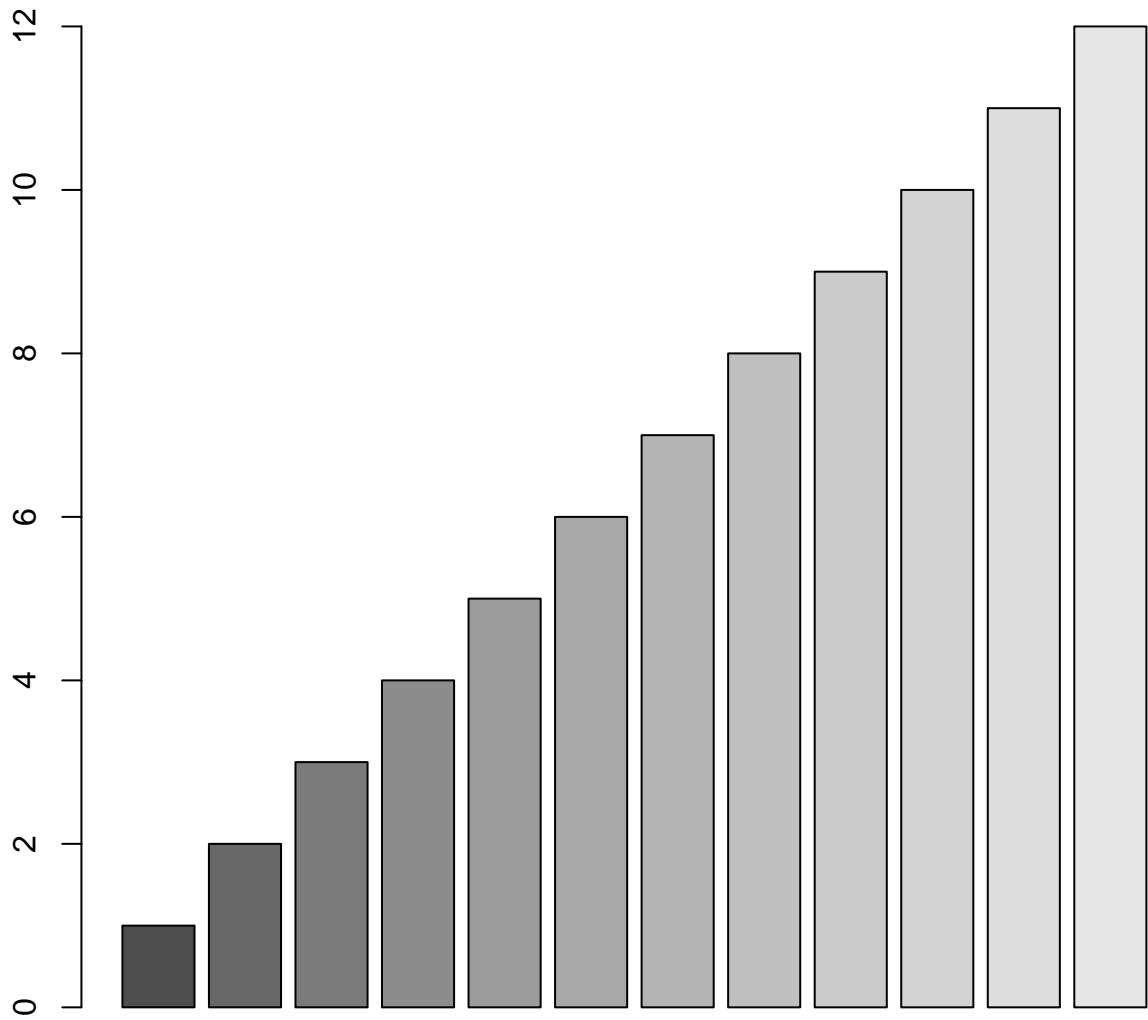
**Lab: L=80**



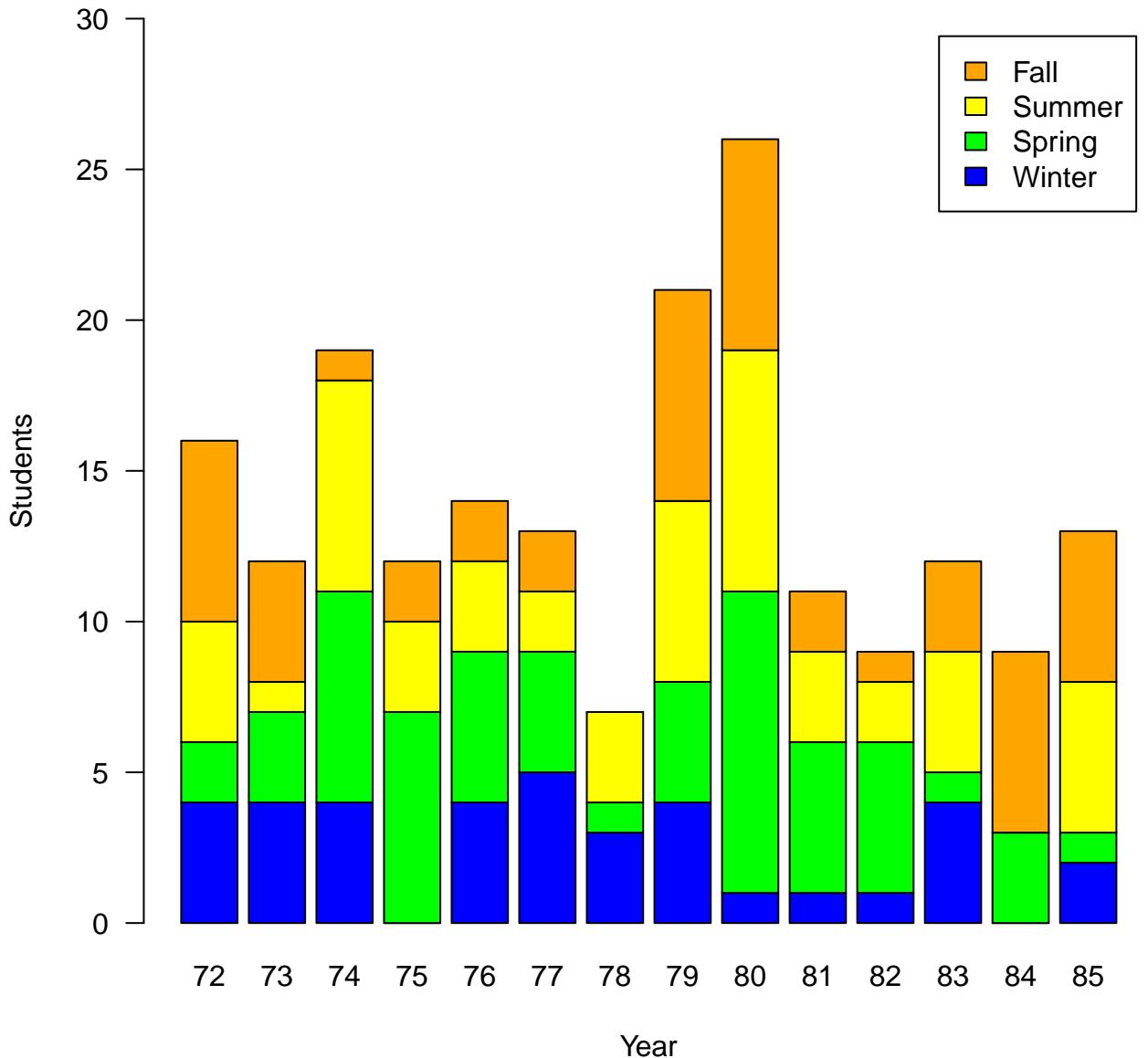
help("gray.colors")



```
help("gray.colors")
```

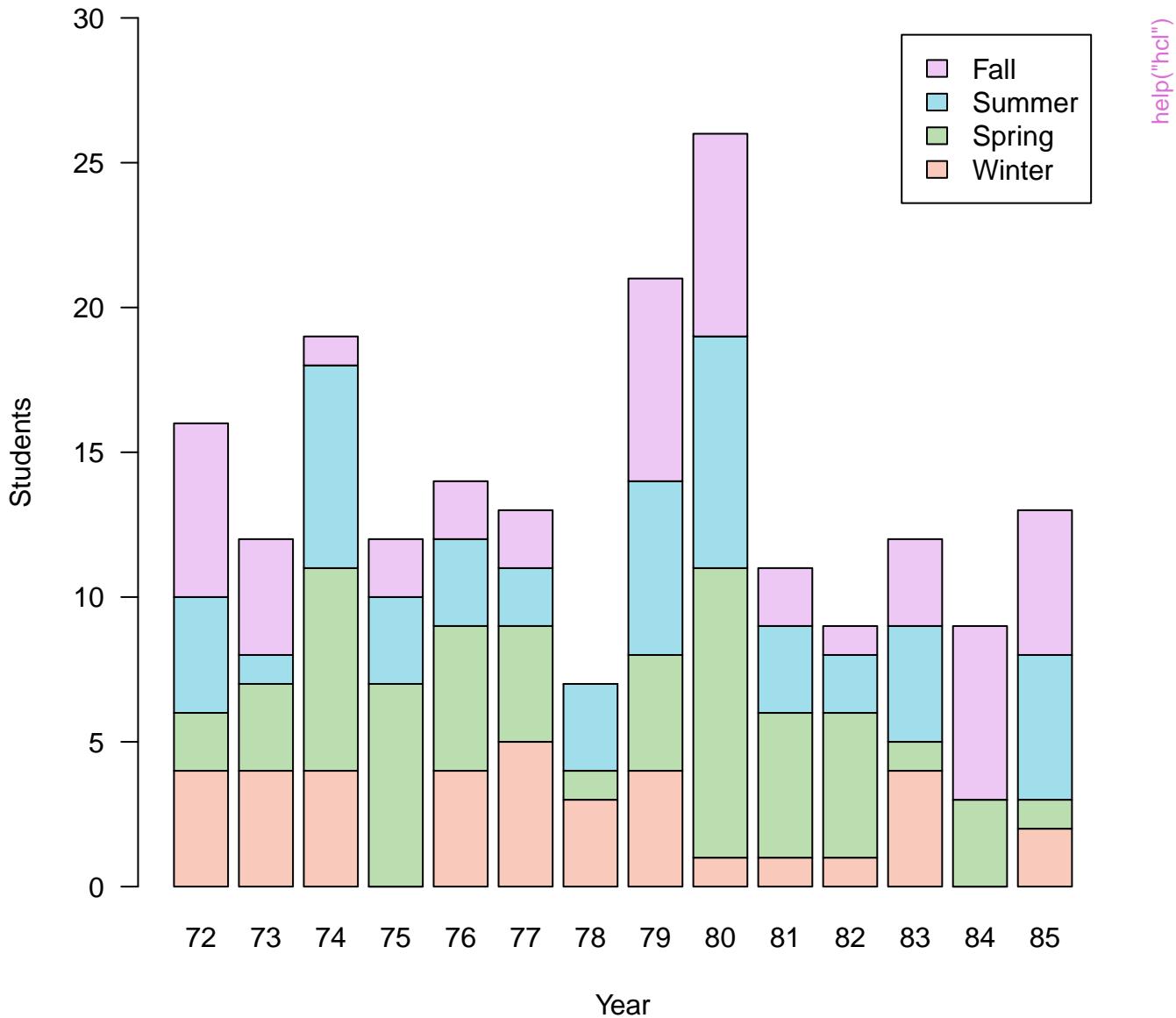


# Computer Science PhD Graduates

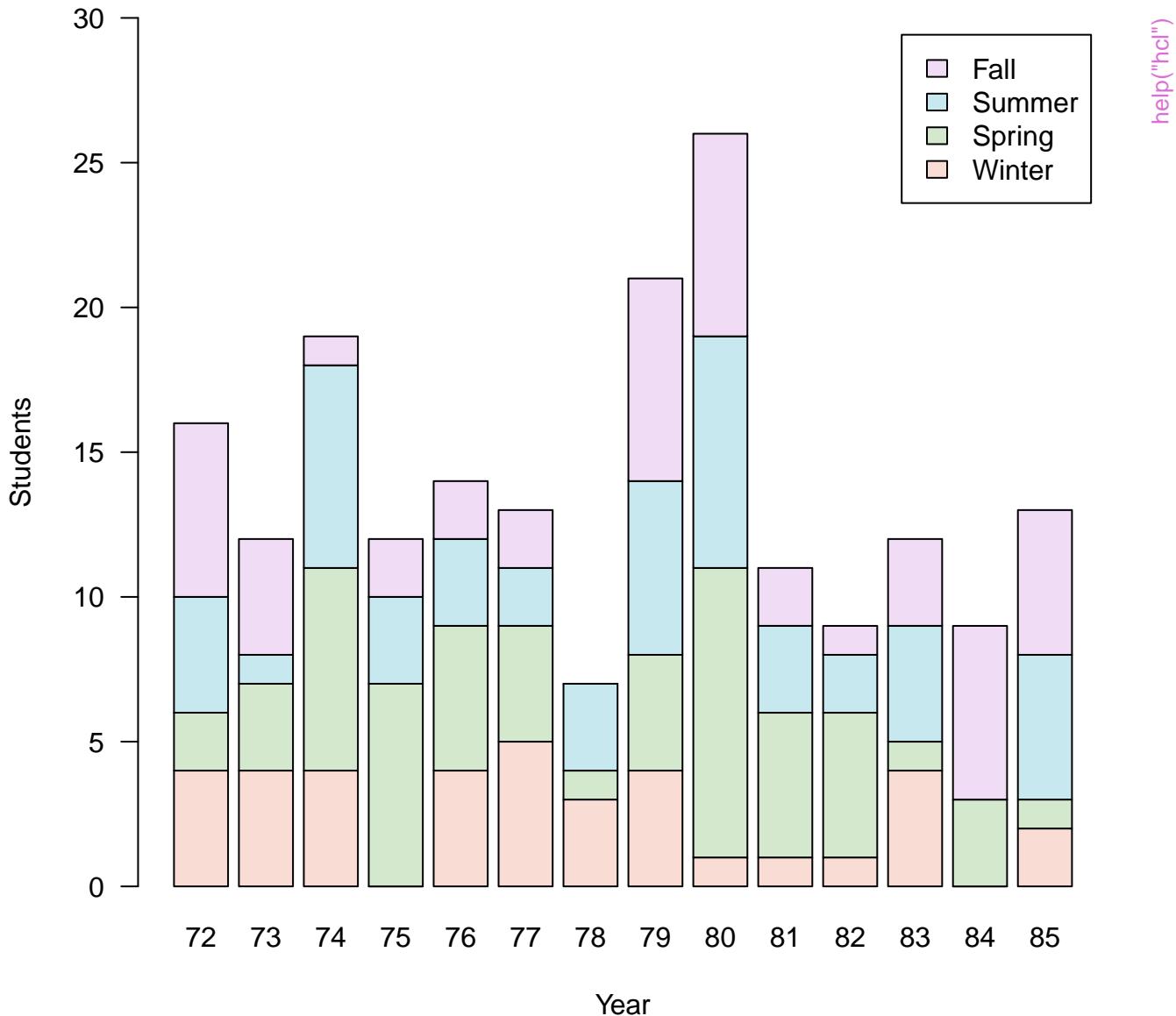


help("hcl")

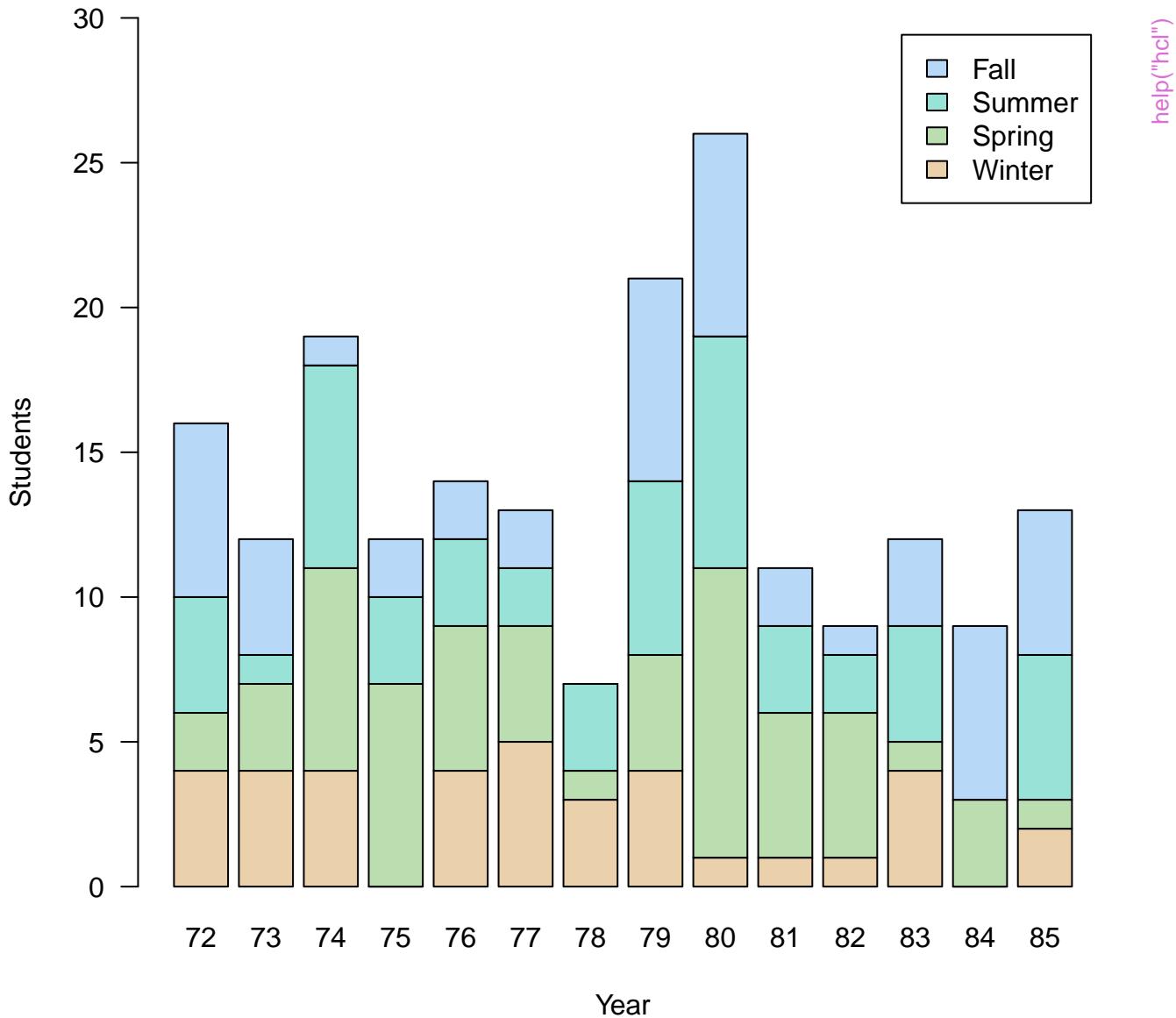
# Computer Science PhD Graduates



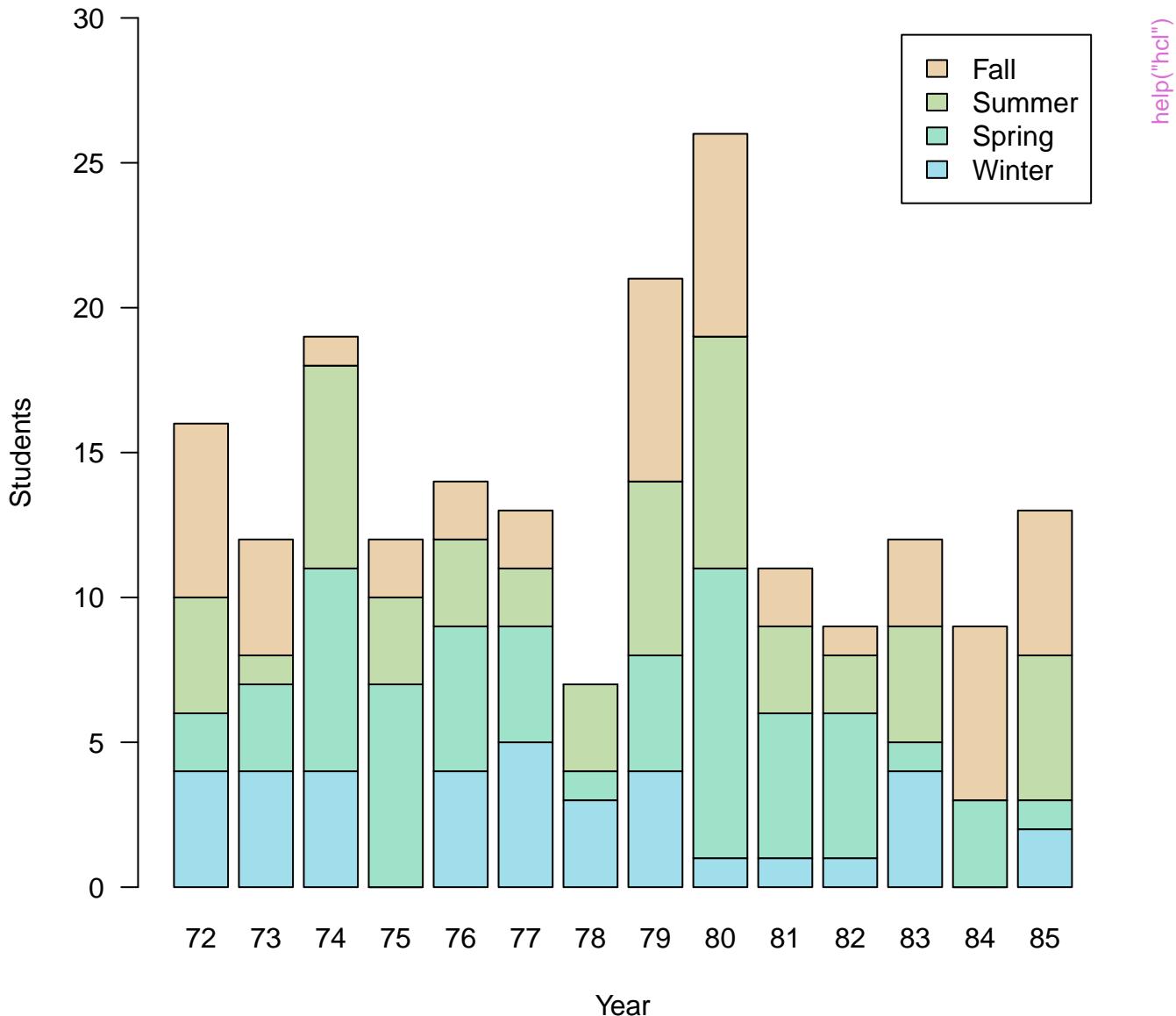
# Computer Science PhD Graduates



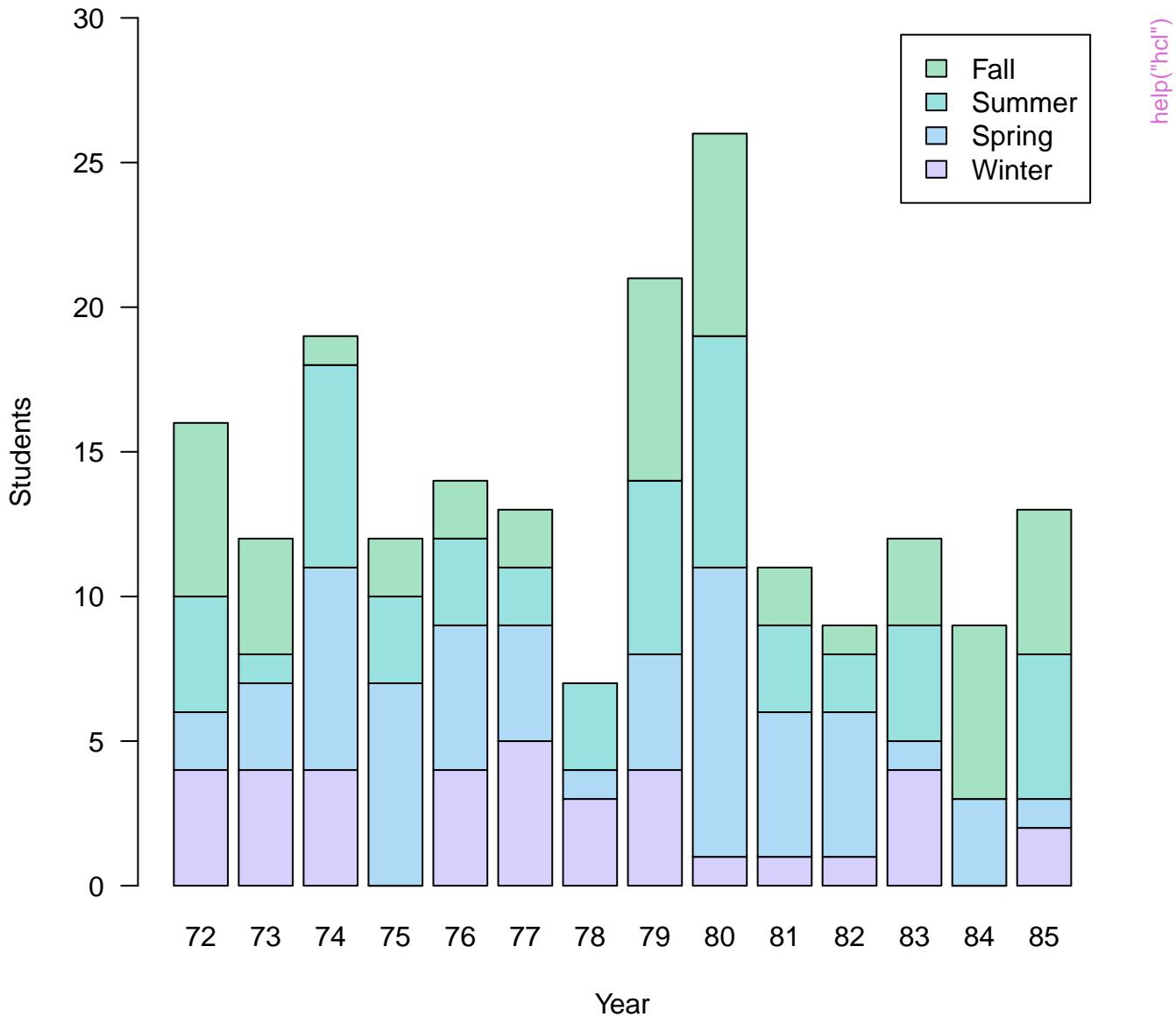
# Computer Science PhD Graduates



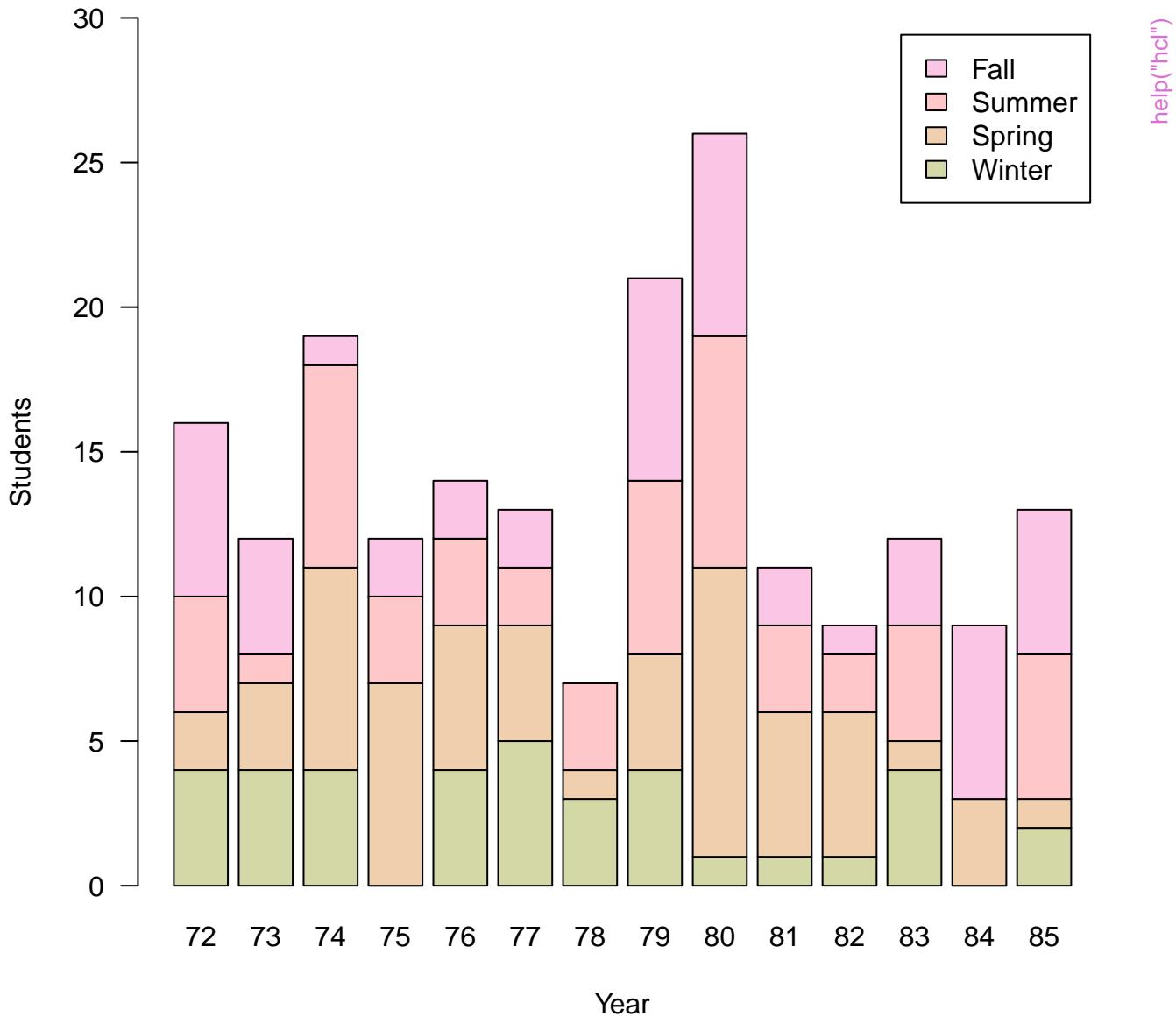
# Computer Science PhD Graduates



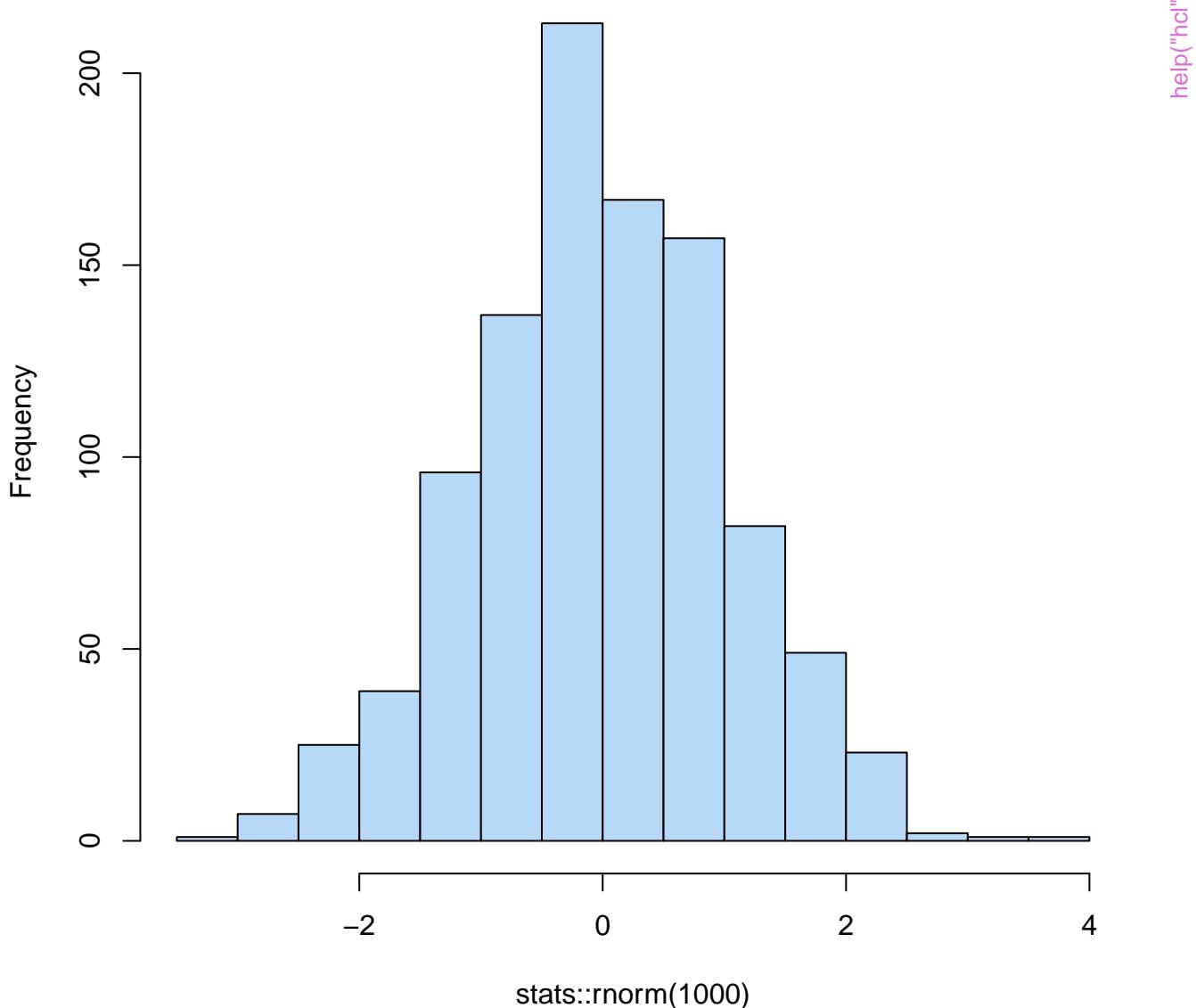
# Computer Science PhD Graduates



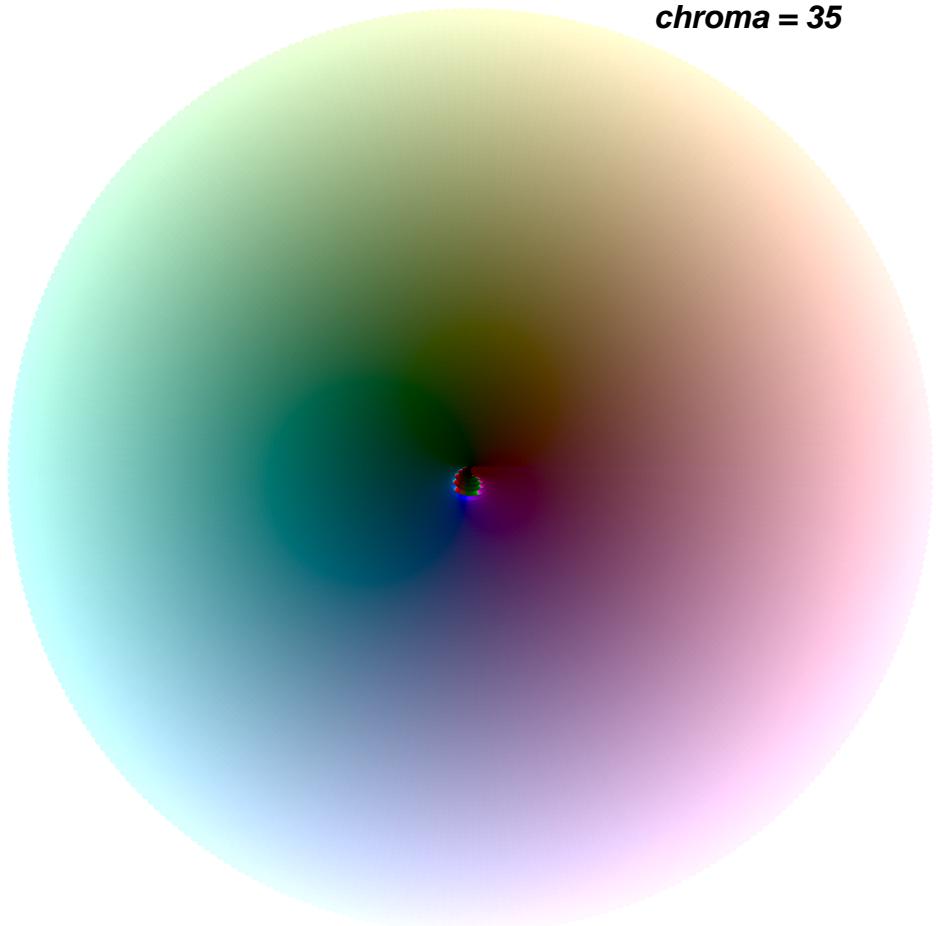
# Computer Science PhD Graduates



# Histogram of stats::rnorm(1000)

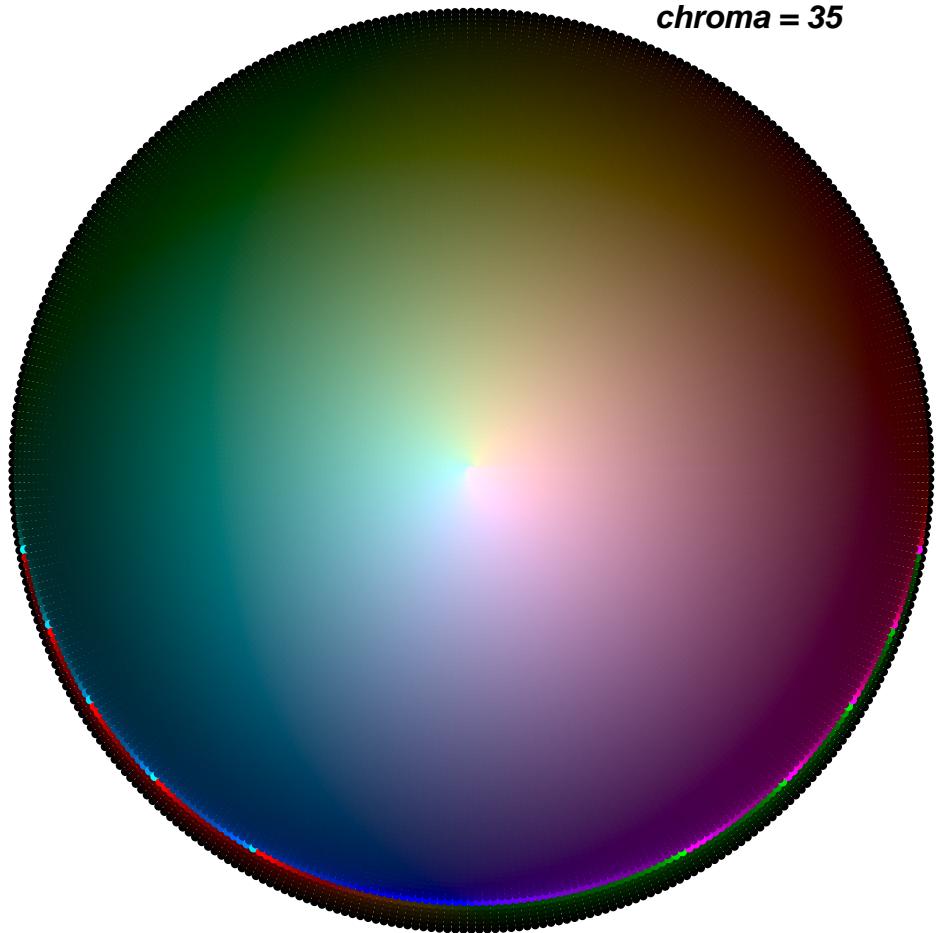


***chroma = 35***



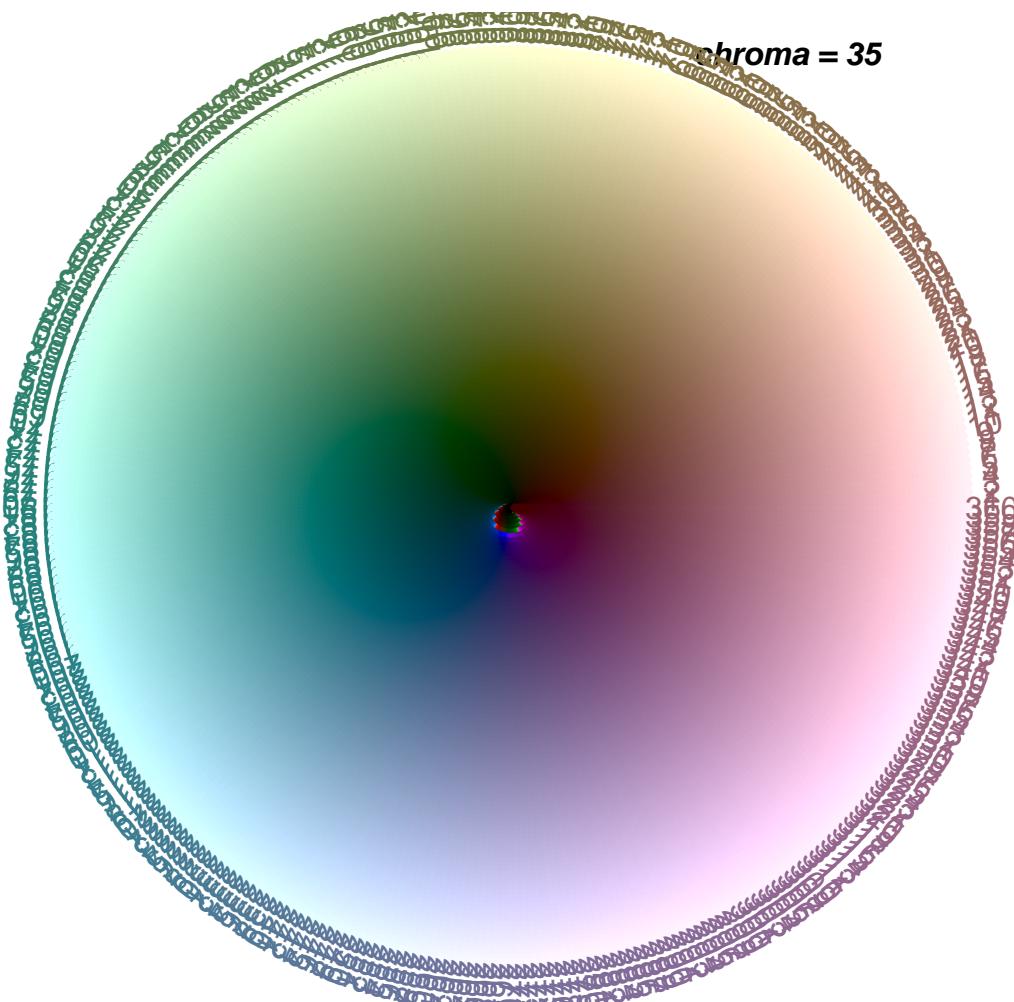
help("hcl")

*chroma = 35*



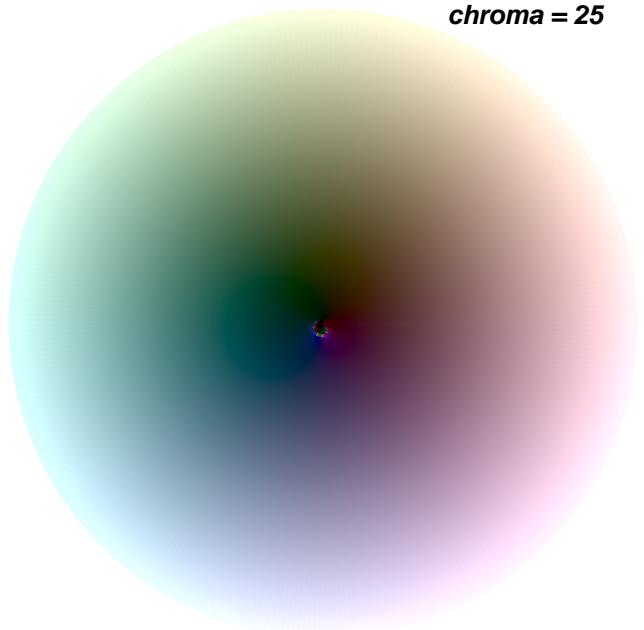
help("hcl")

**chroma = 35**

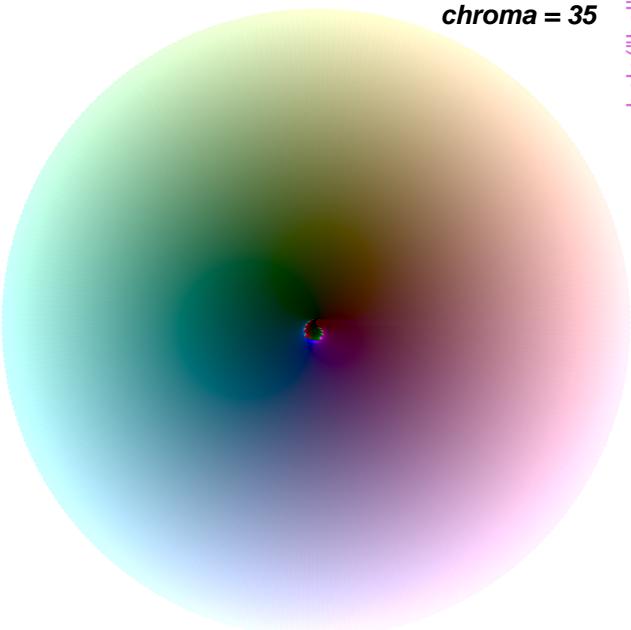


help("hcl")

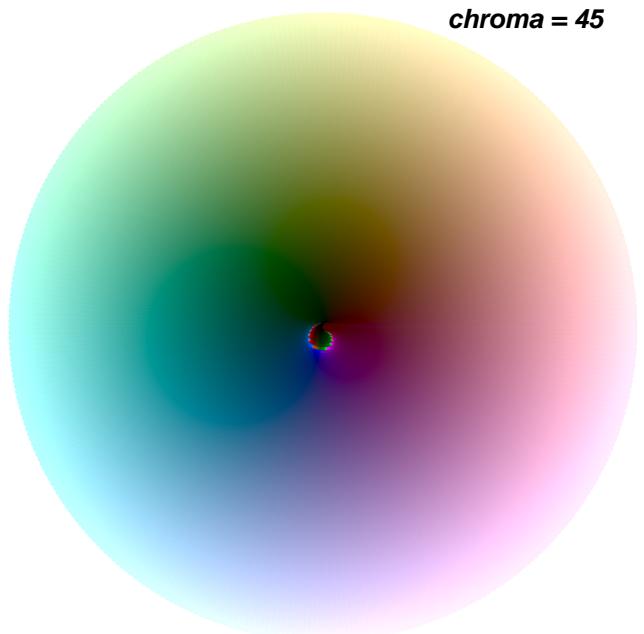
*chroma* = 25



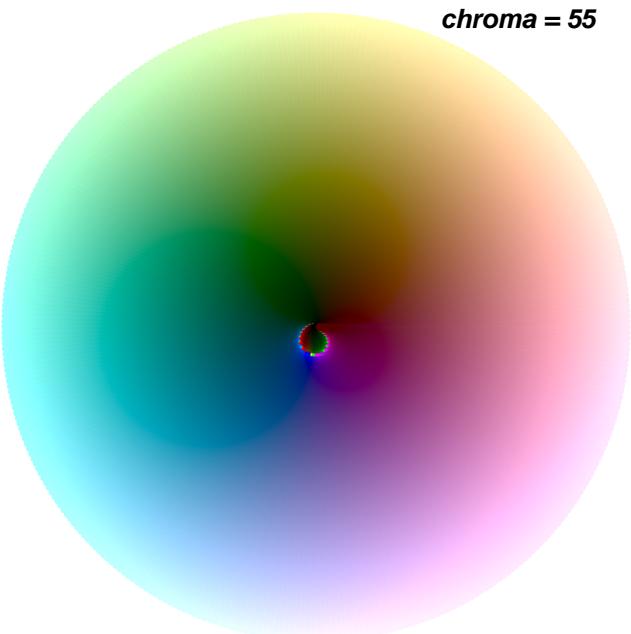
*chroma* = 35



*chroma* = 45



*chroma* = 55



help("hcl")

*chroma = 10*



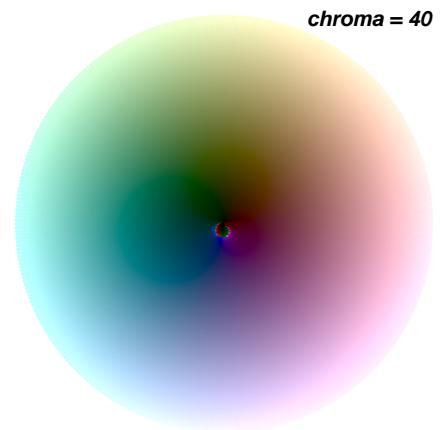
*chroma = 20*



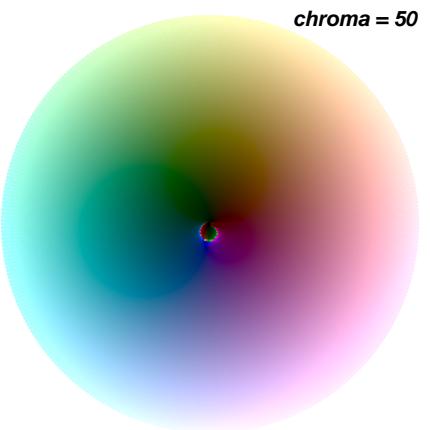
*chroma = 30*



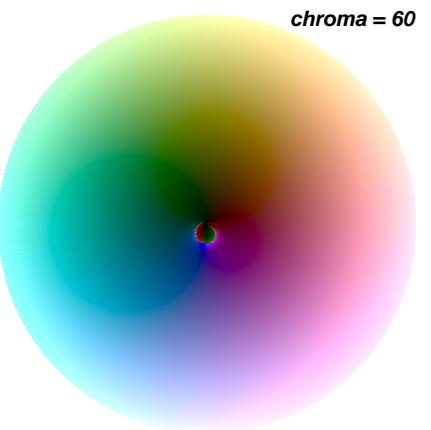
*chroma = 40*



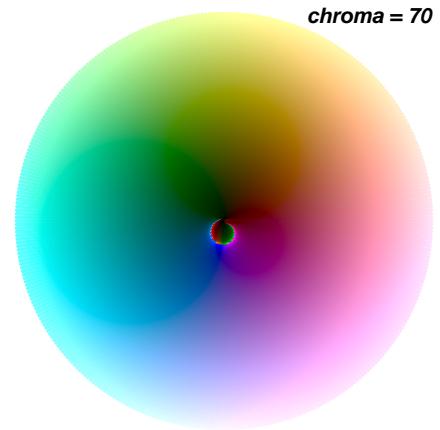
*chroma = 50*



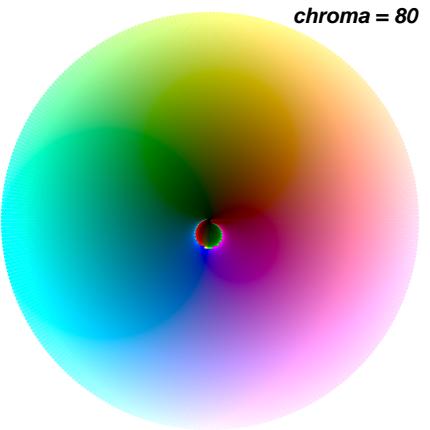
*chroma = 60*



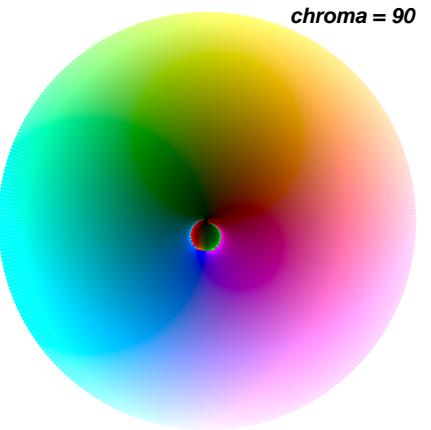
*chroma = 70*



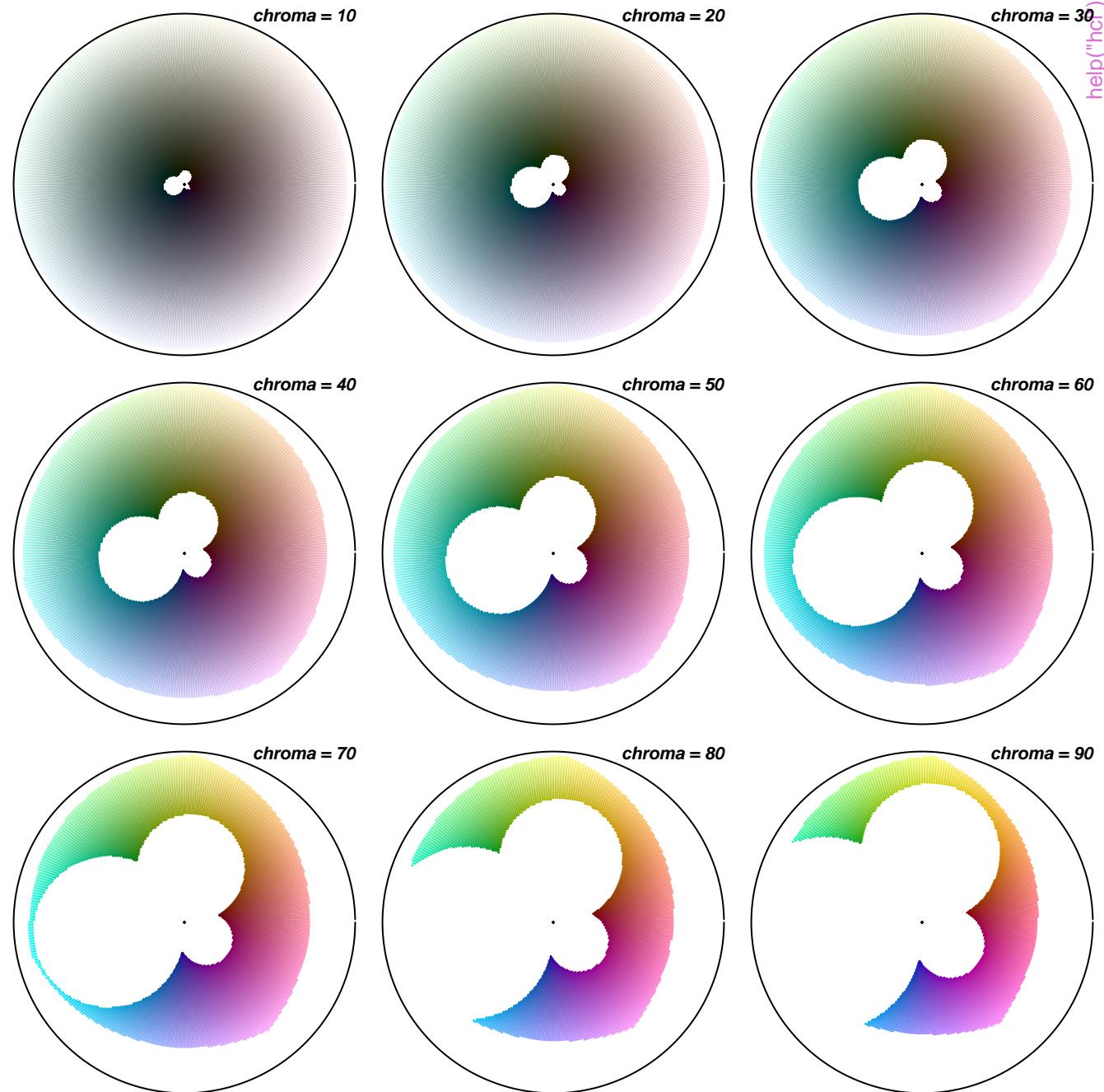
*chroma = 80*

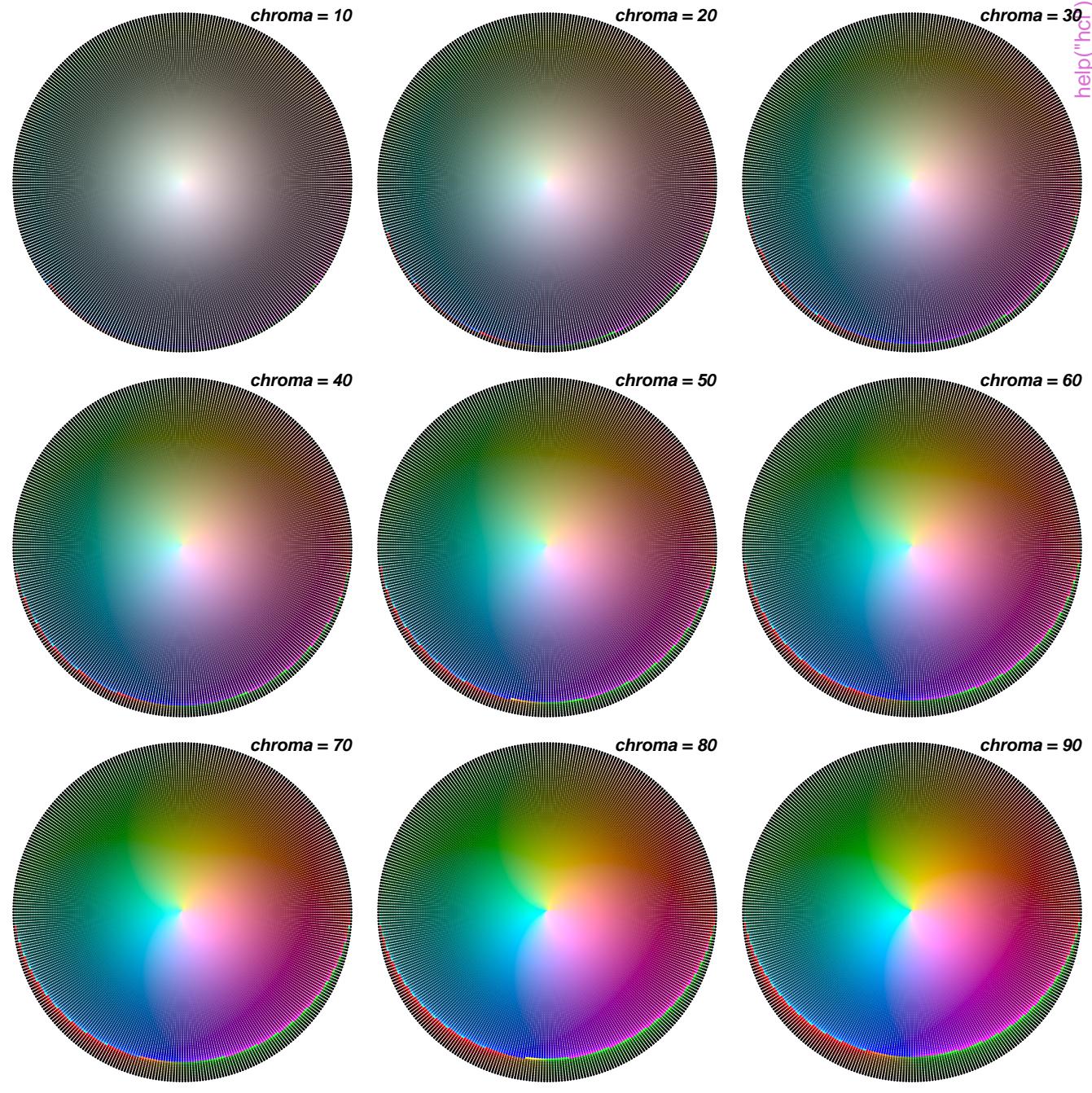


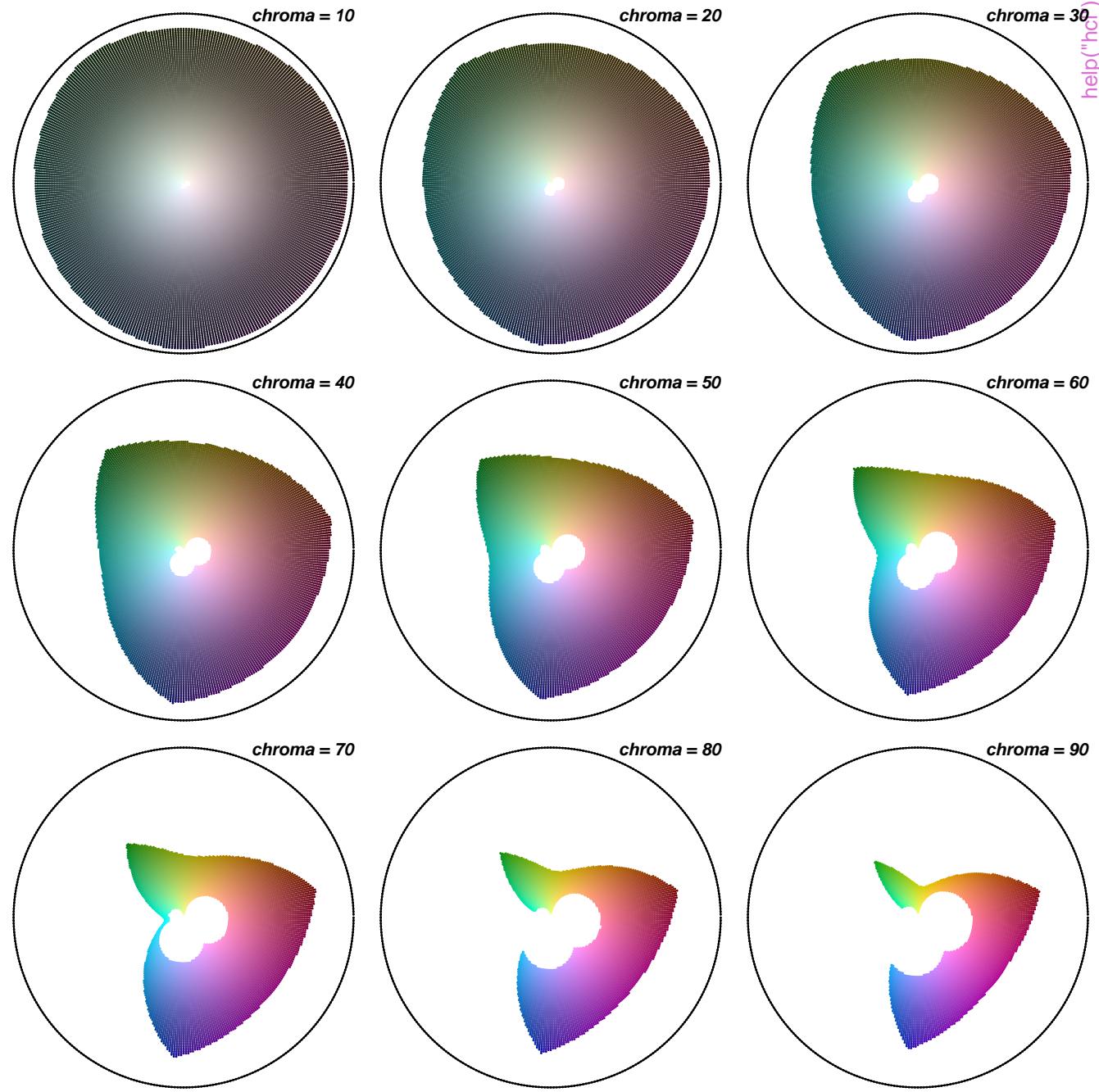
*chroma = 90*



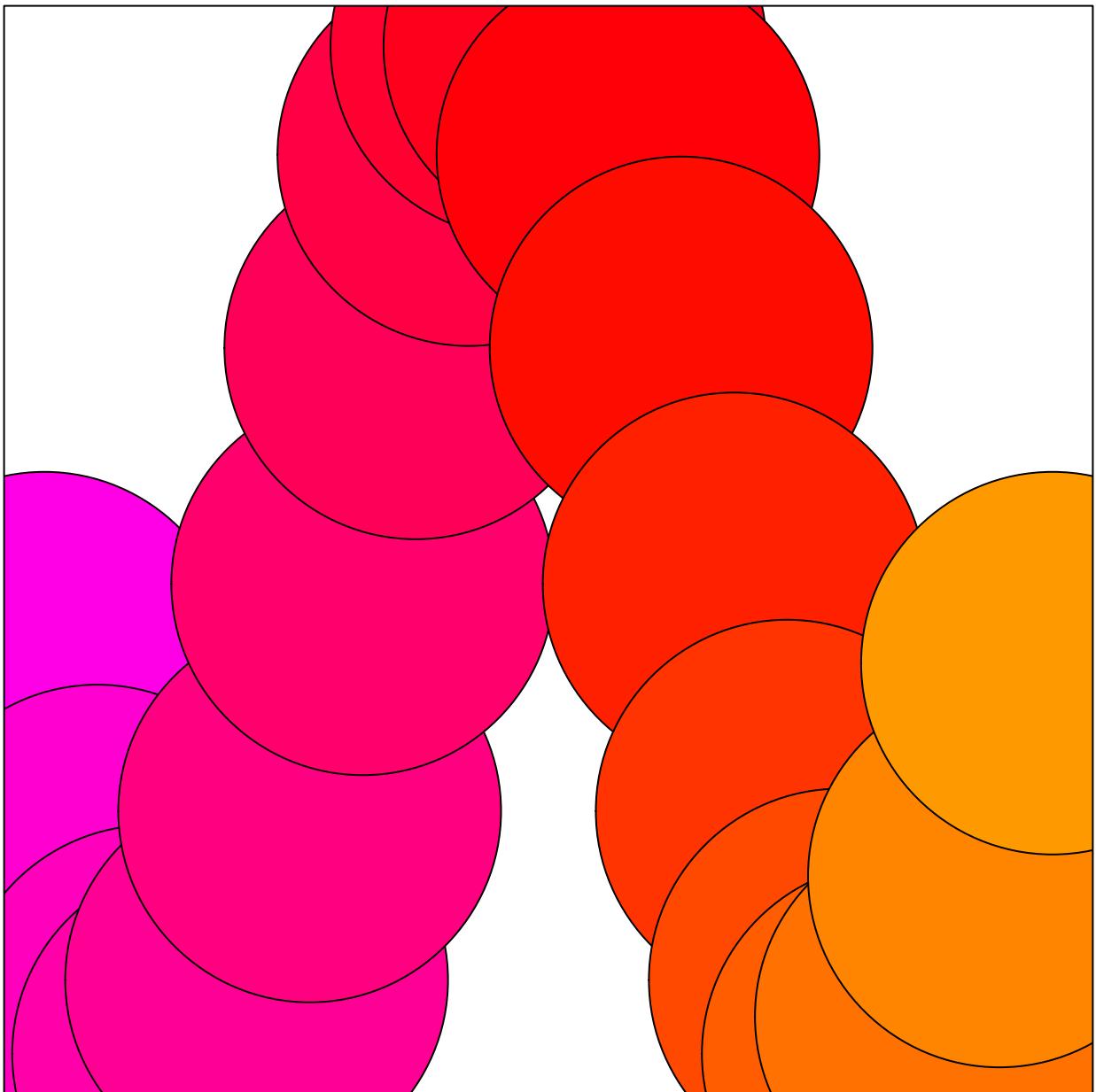
*help("hcl")*







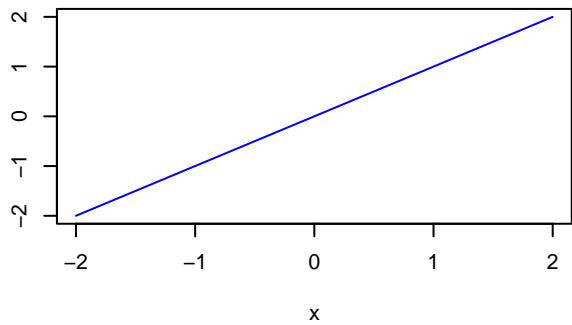
# Red tones



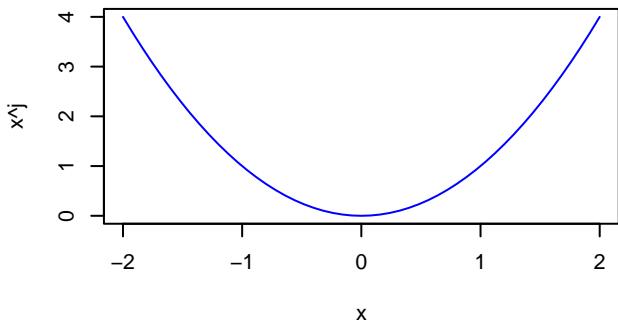
help("hsv")

help("n2mfrow")

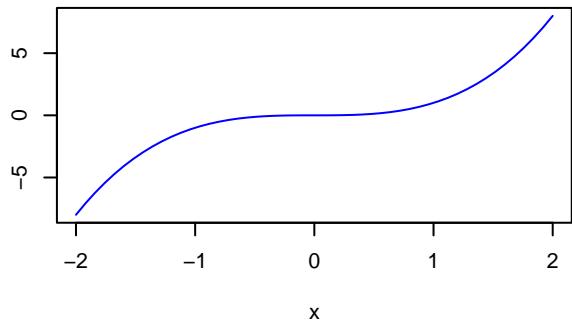
$x^1$



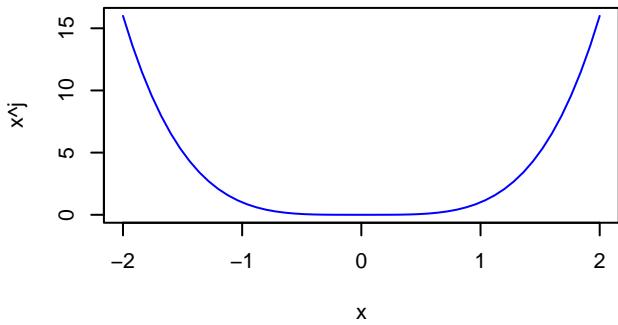
$x^2$



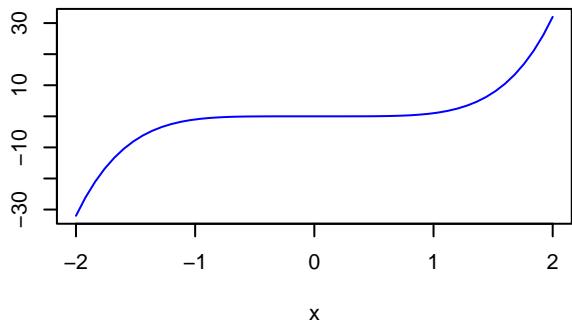
$x^3$



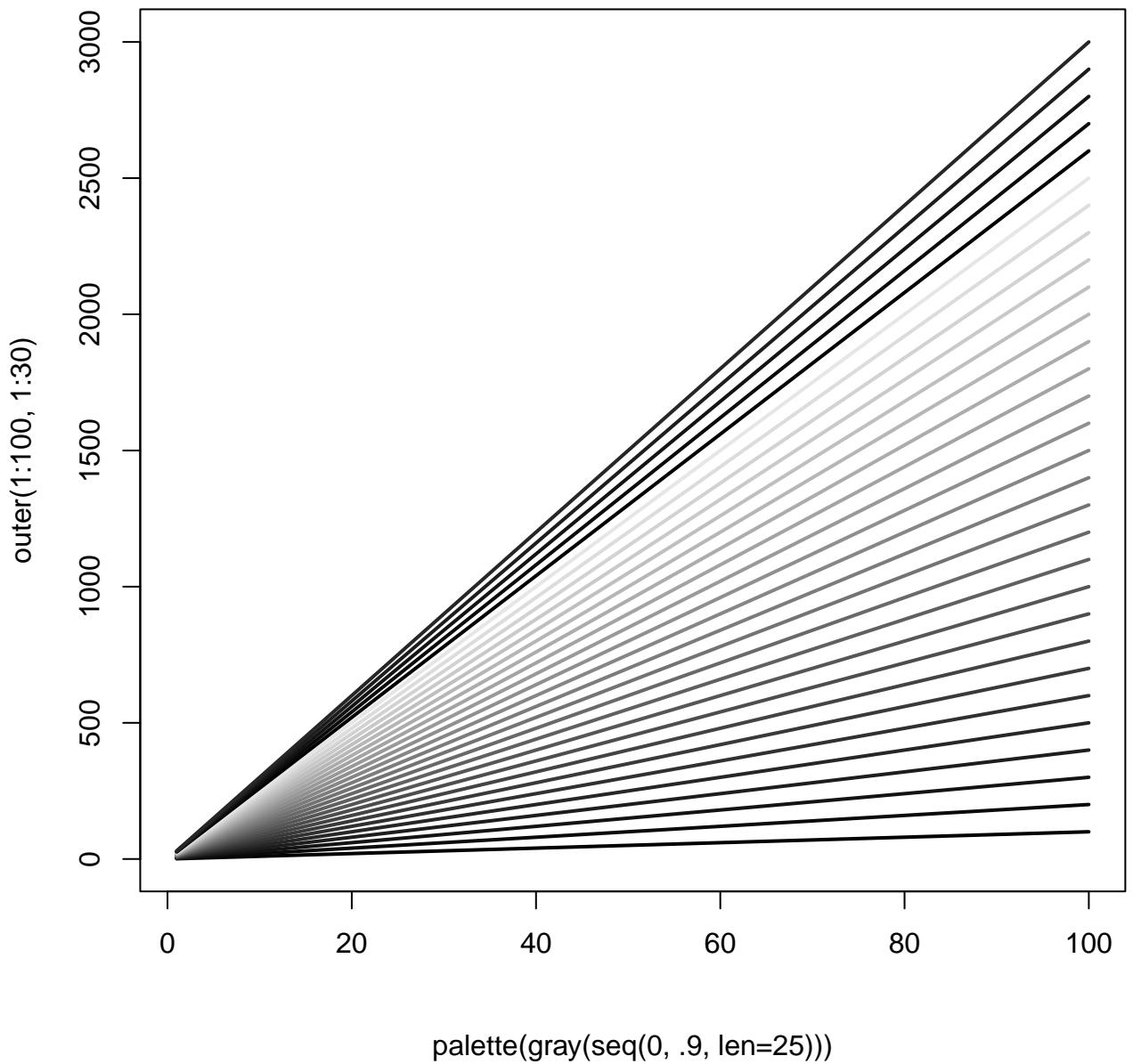
$x^4$



$x^5$

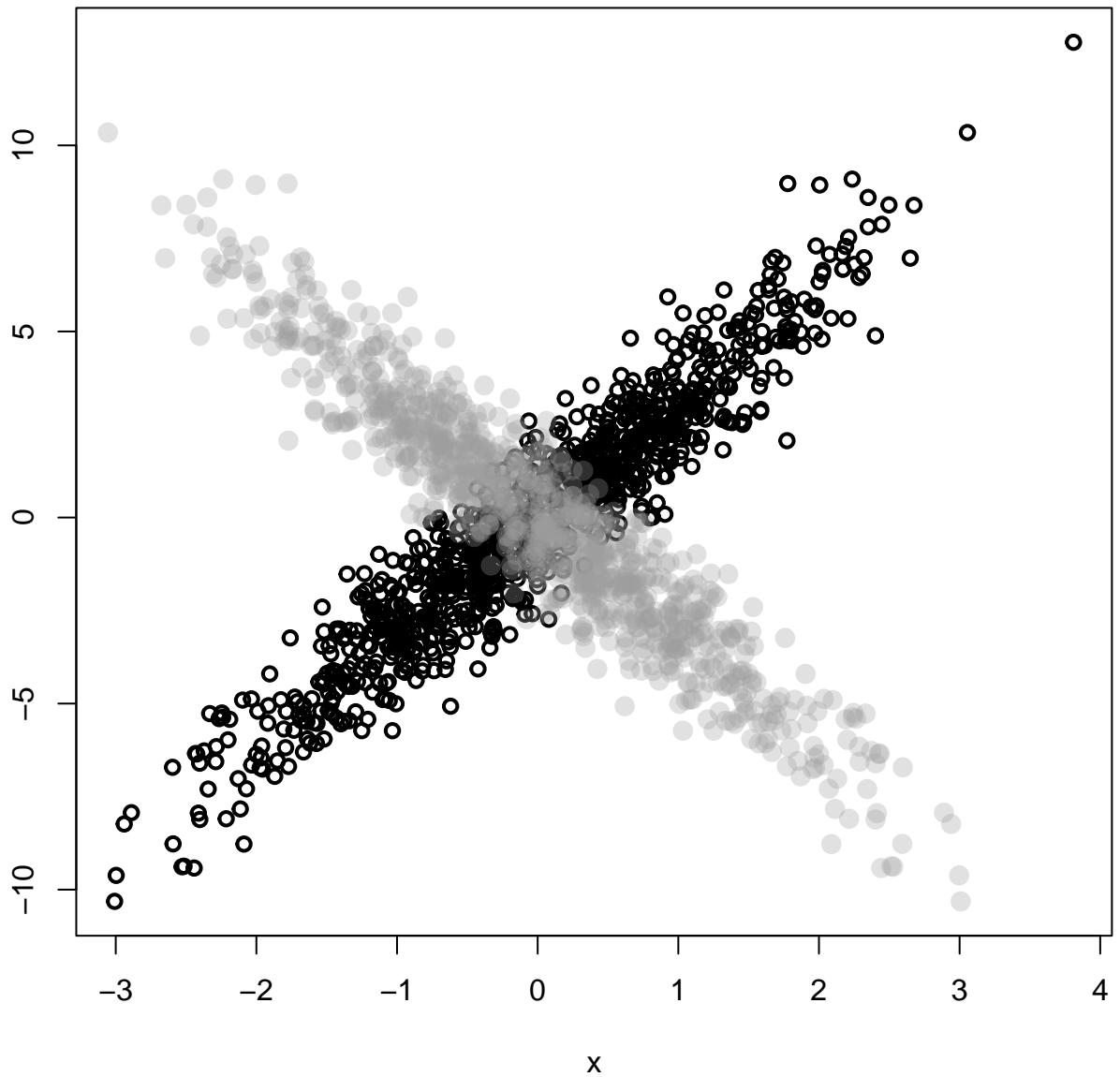


## Gray Scales Palette



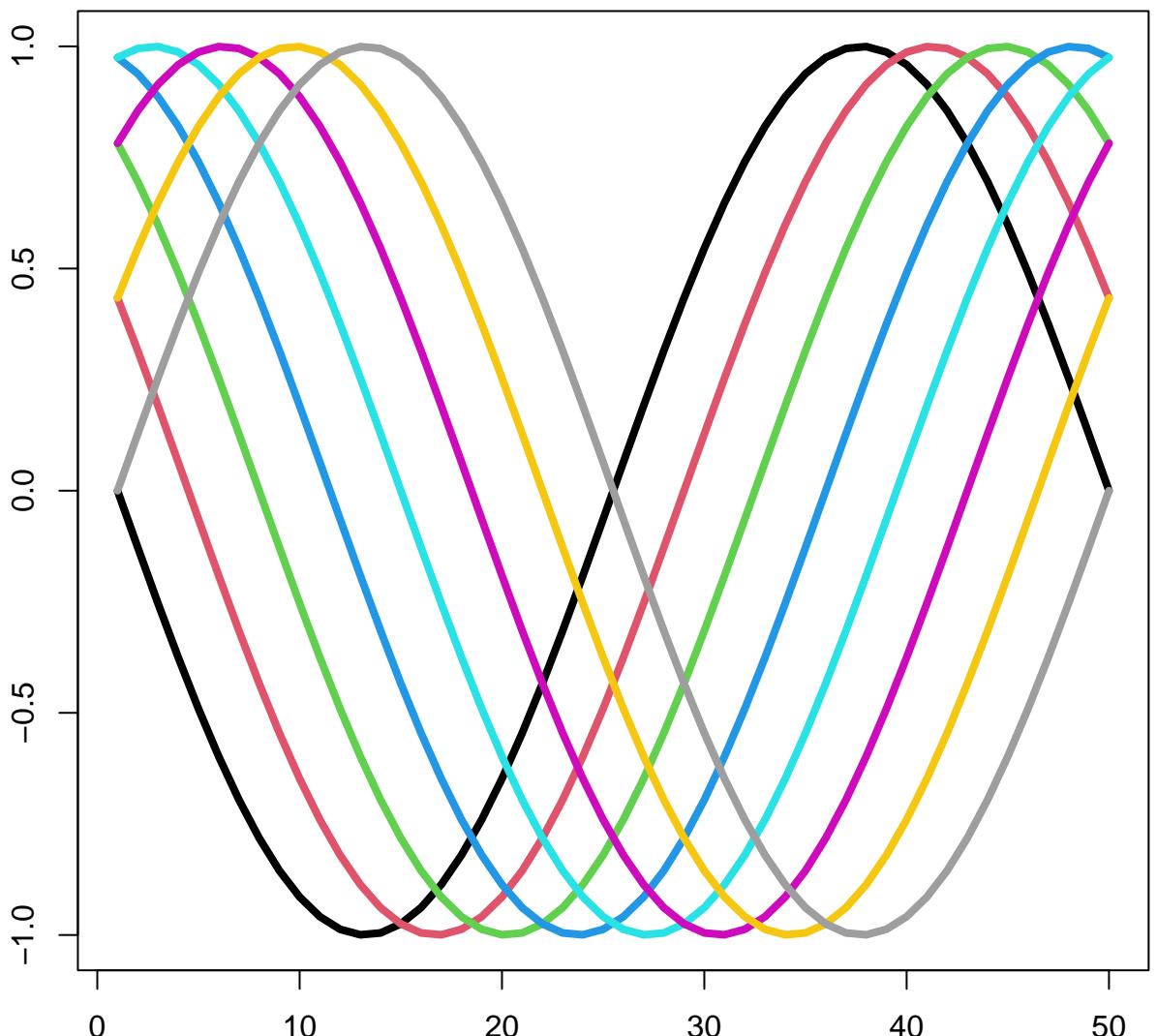
help("palette")

# Alpha-Transparency Palette alpha = 0.3



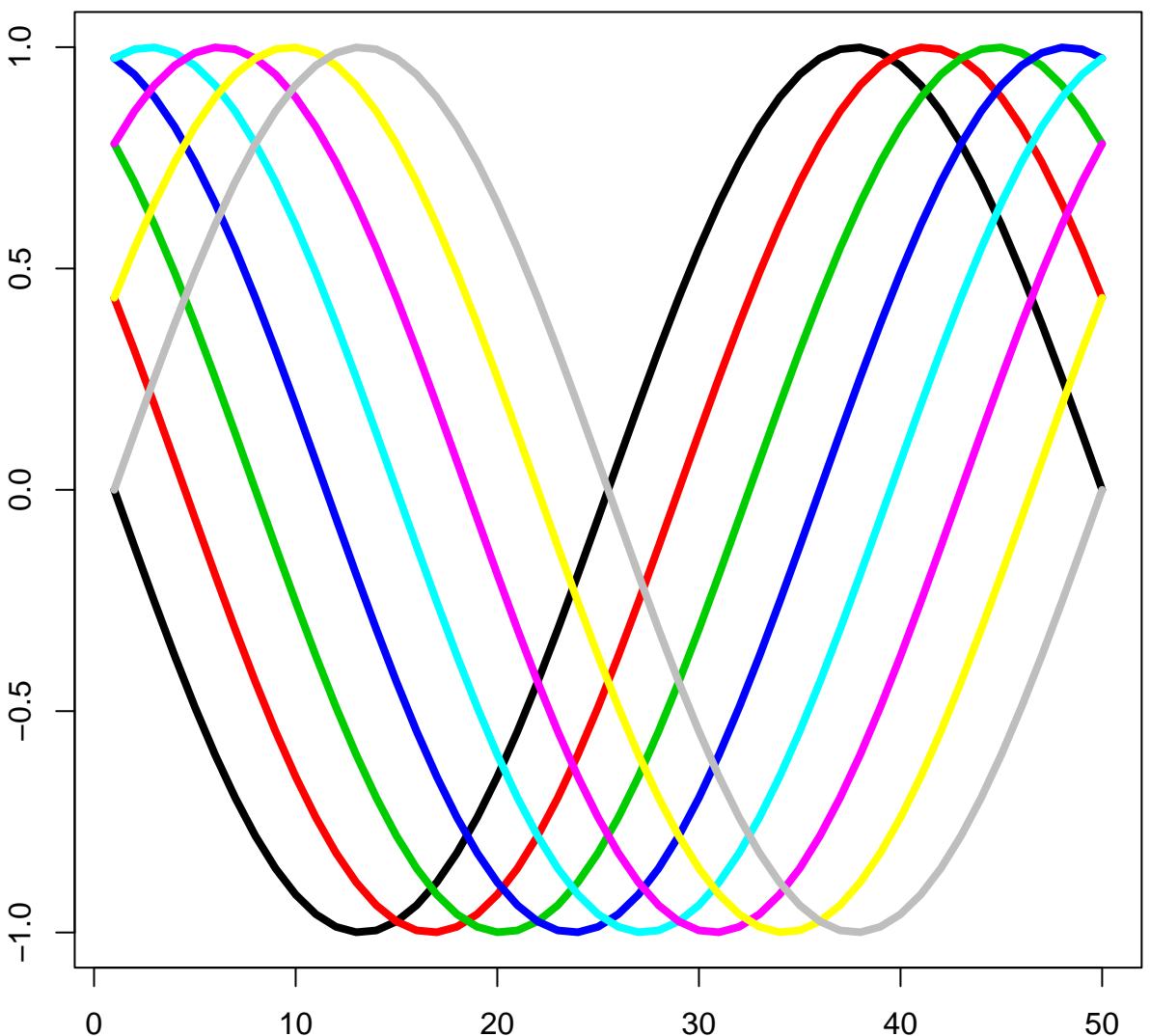
help("palette")

# default palette



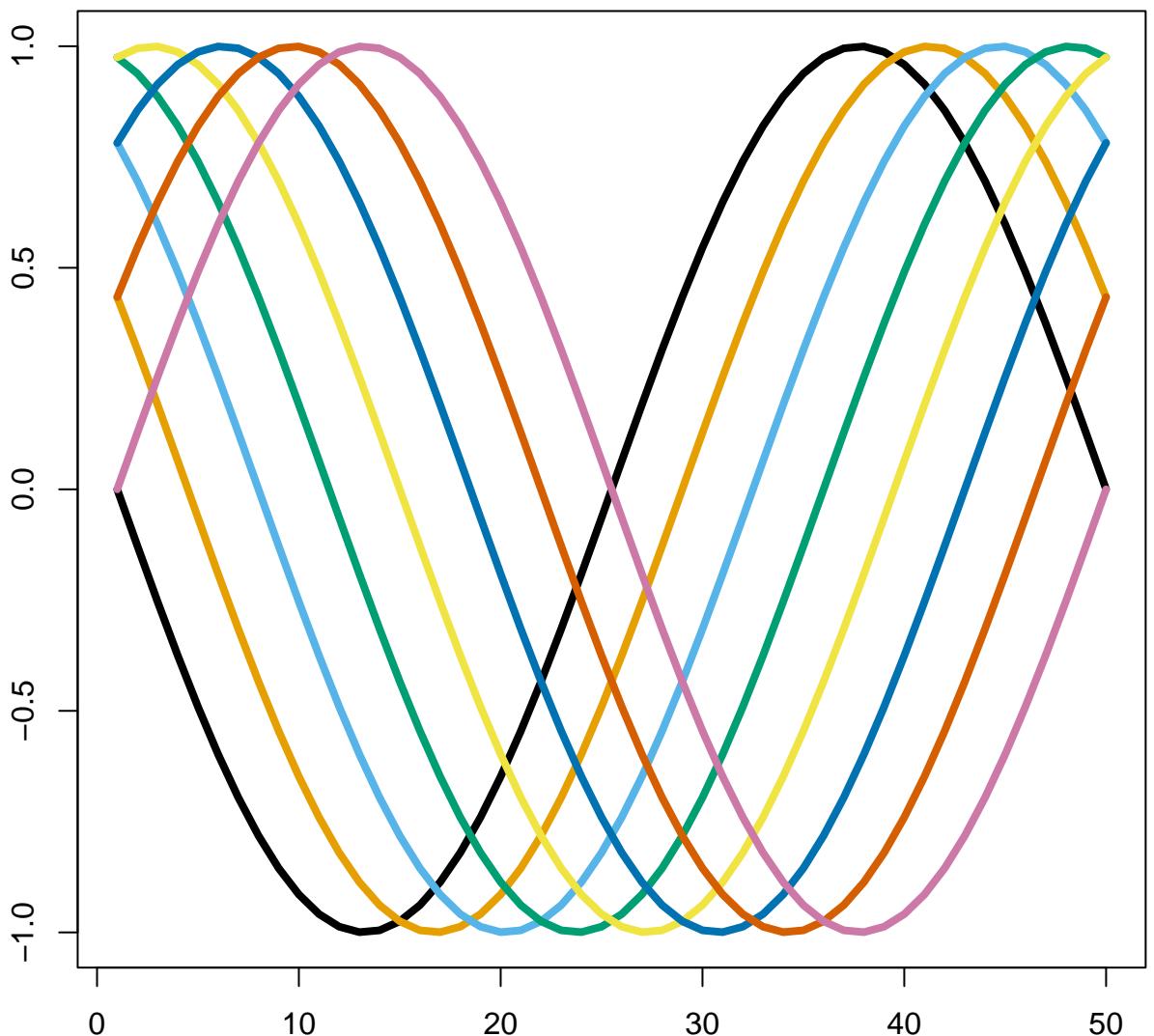
help("palette")

R3



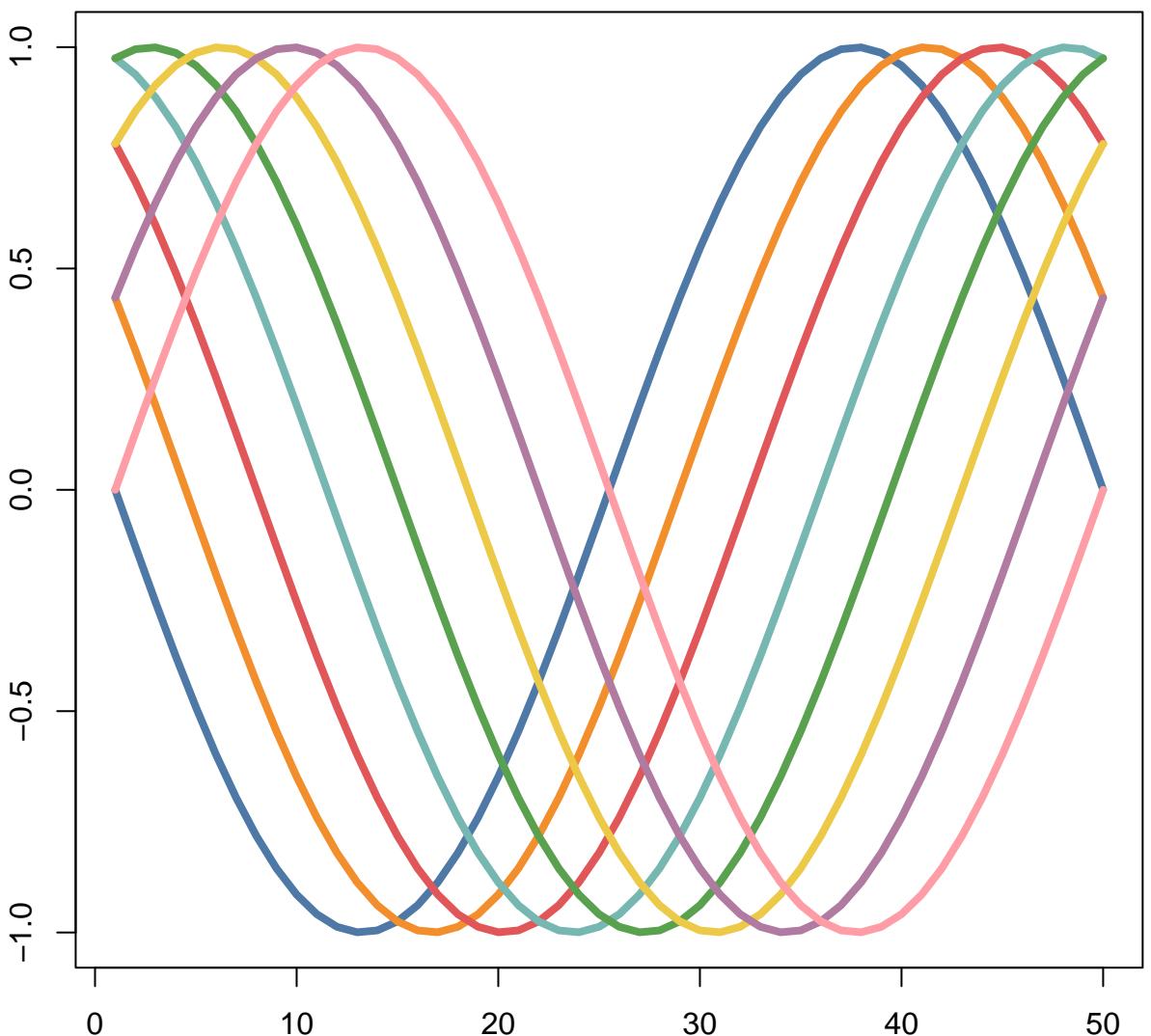
help("palette")

# Okabe–Ito



help("palette")

# Tableau



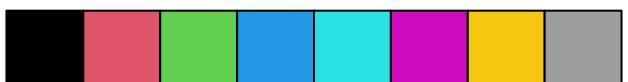
help("palette")

help("palette")

R3



R4



ggplot2



Okabe–Ito



Accent



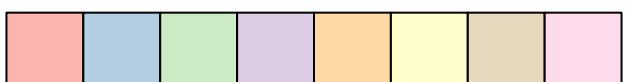
Dark 2



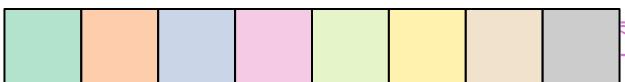
Paired



Pastel 1



Pastel 2



Set 1



Set 2



Set 3

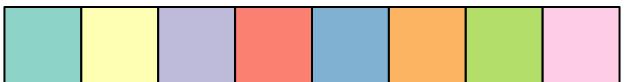
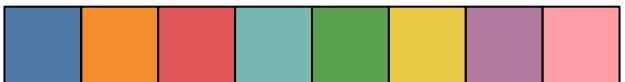
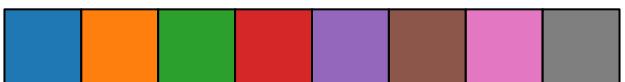


Tableau 10



Classic Tableau



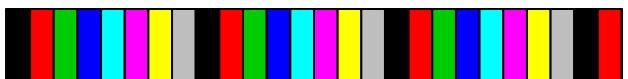
Polychrome 36



Alphabet



R3



R4



ggplot2



Okabe–Ito



Accent



Dark 2



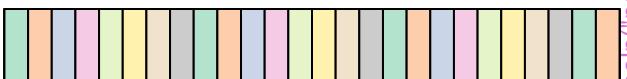
Paired



Pastel 1



Pastel 2



Set 1



Set 2



Set 3



Tableau 10



Classic Tableau



Polychrome 36

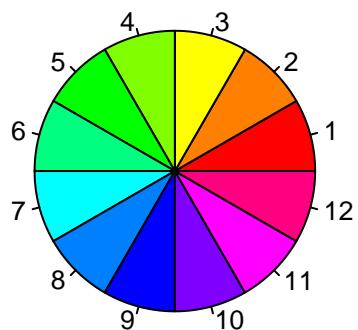


Alphabet

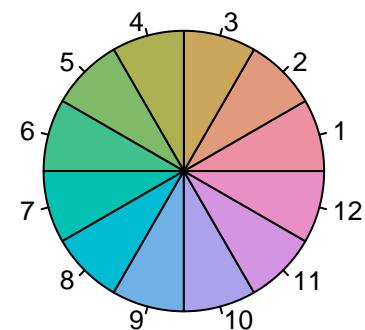


help("palette")

**RGB/HSV**

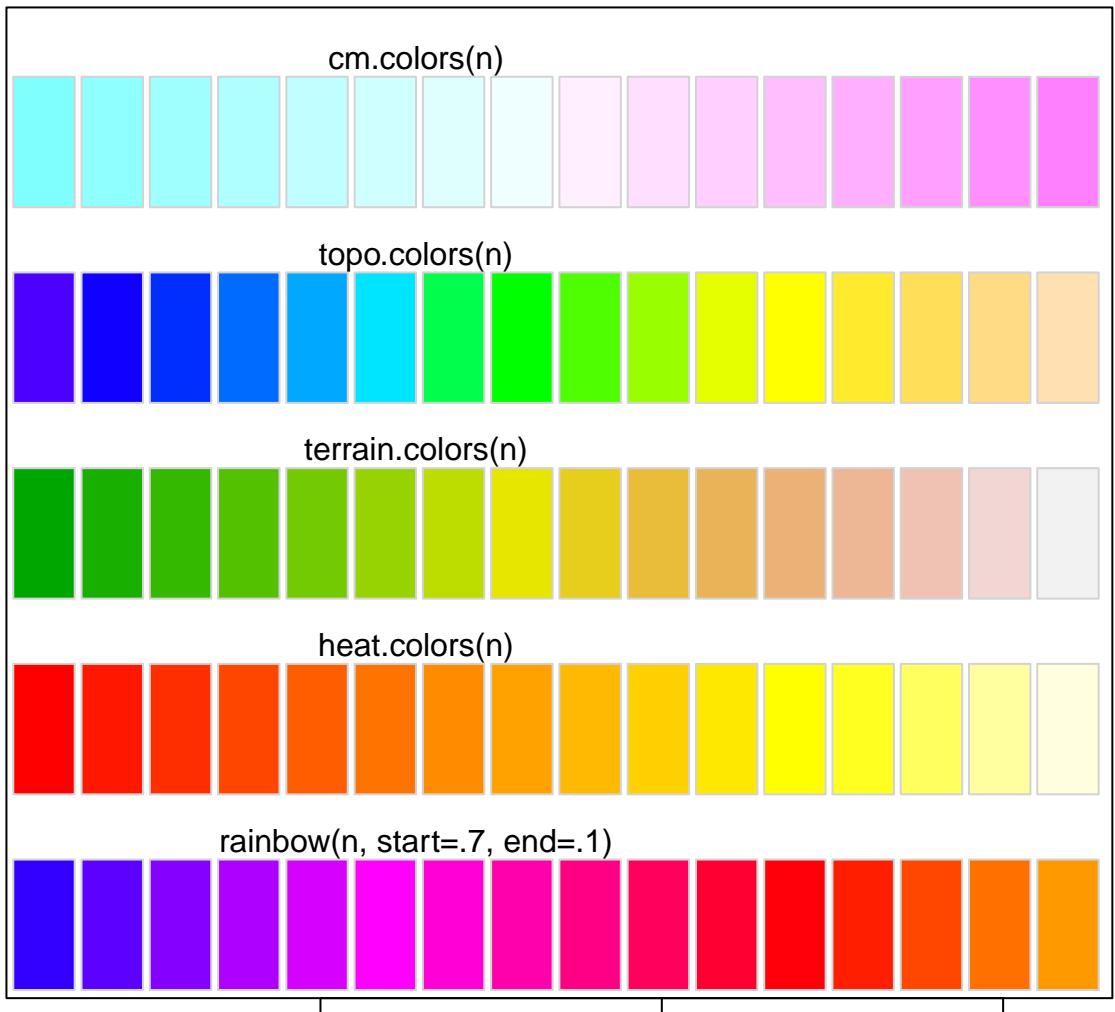


**HCL**

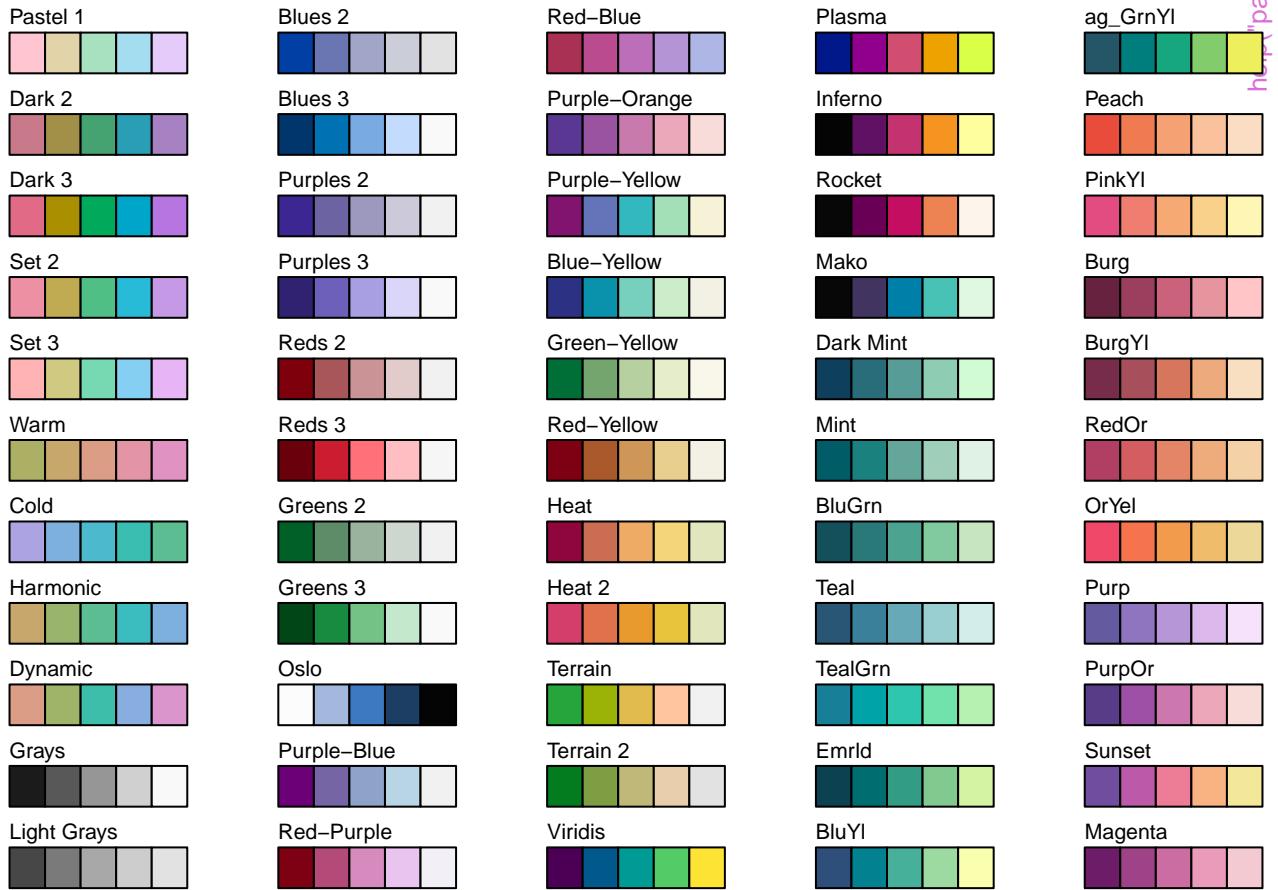


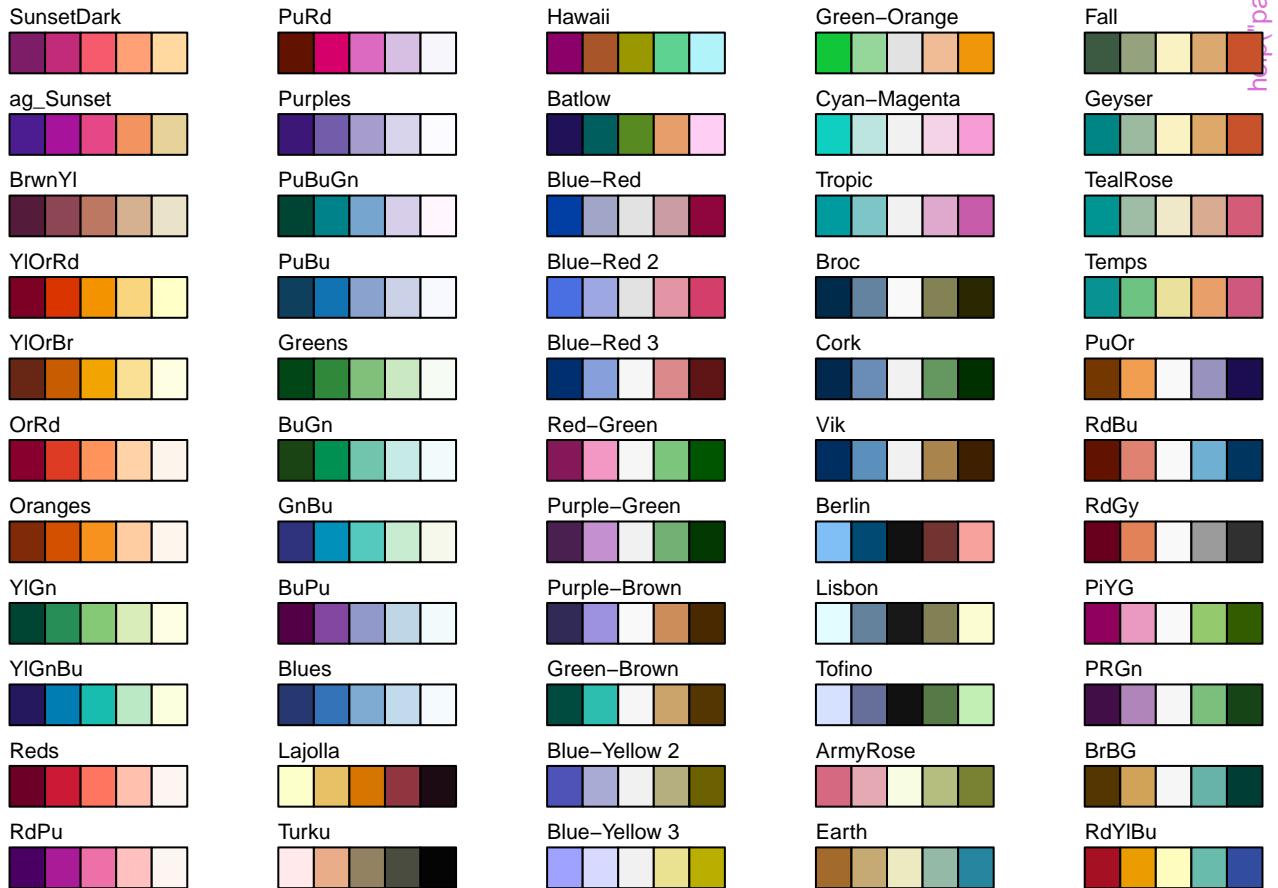
help("palettes")

## color palettes; n= 16

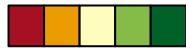


help("palettes")





RdYIGn



Spectral



Zissou 1



Cividis

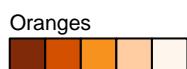
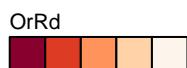
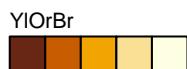
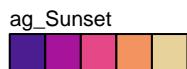
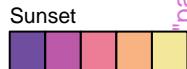
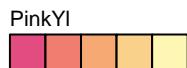
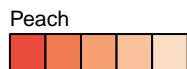
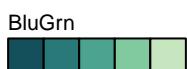
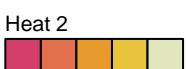
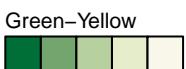
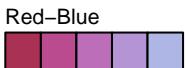
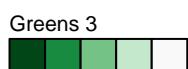
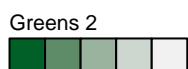
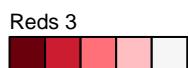
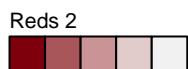
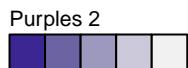
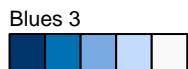
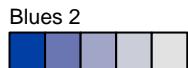


Roma



help("palettes")





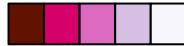
Reds



RdPu



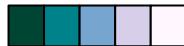
PuRd



Purples



PuBuGn



PuBu



Greens



BuGn



GnBu



BuPu



Blues



Lajolla



Turku



Hawaii



Batlow



help("palettes")

Blue–Red



Blue–Red 2



Blue–Red 3



Red–Green



Purple–Green



Purple–Brown



Green–Brown



Blue–Yellow 2



Blue–Yellow 3



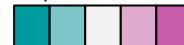
Green–Orange



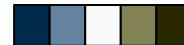
Cyan–Magenta



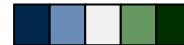
Tropic



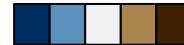
Broc



Cork



Vik



Berlin



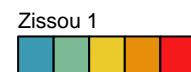
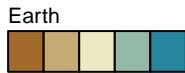
Lisbon



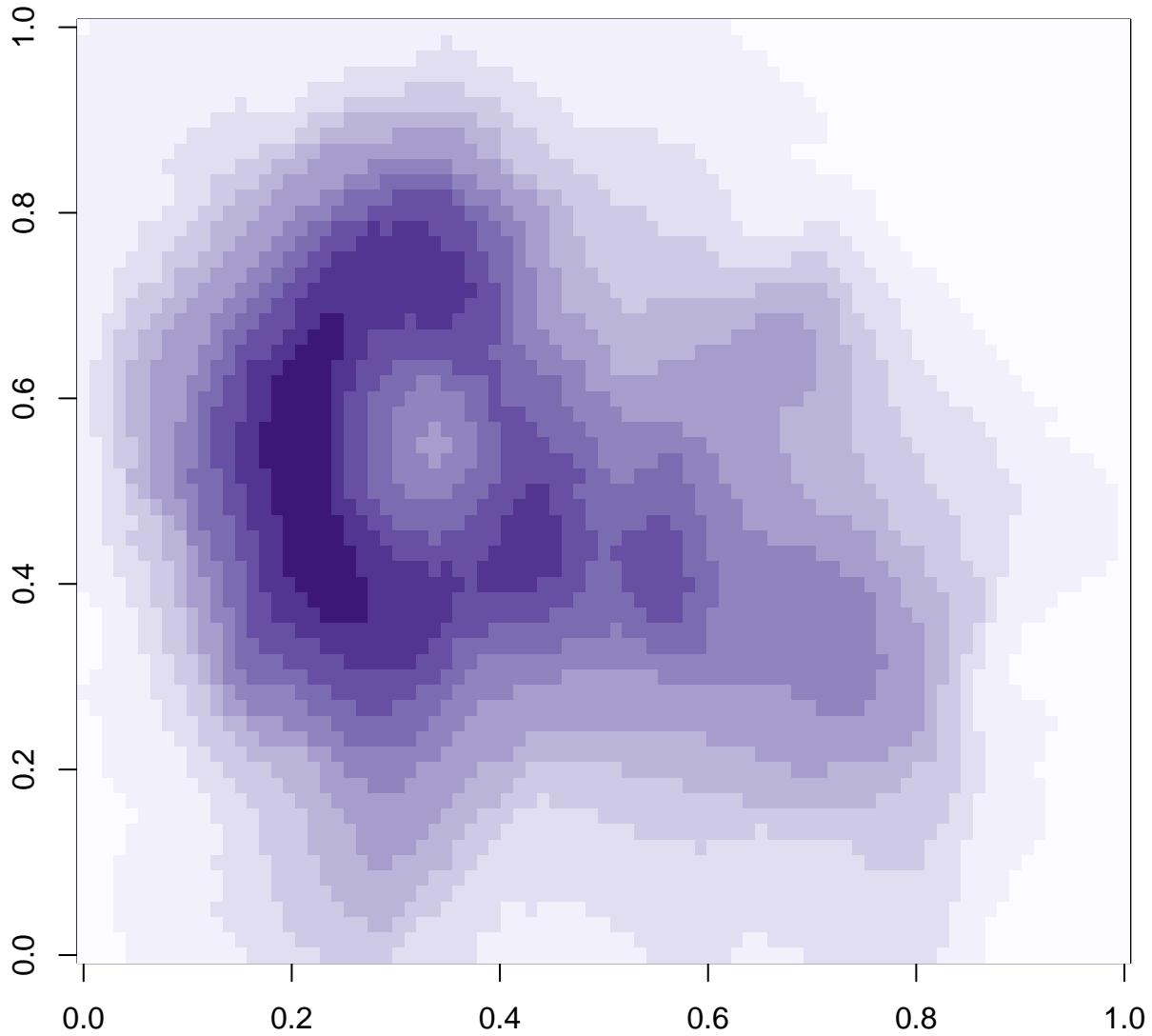
Tofino

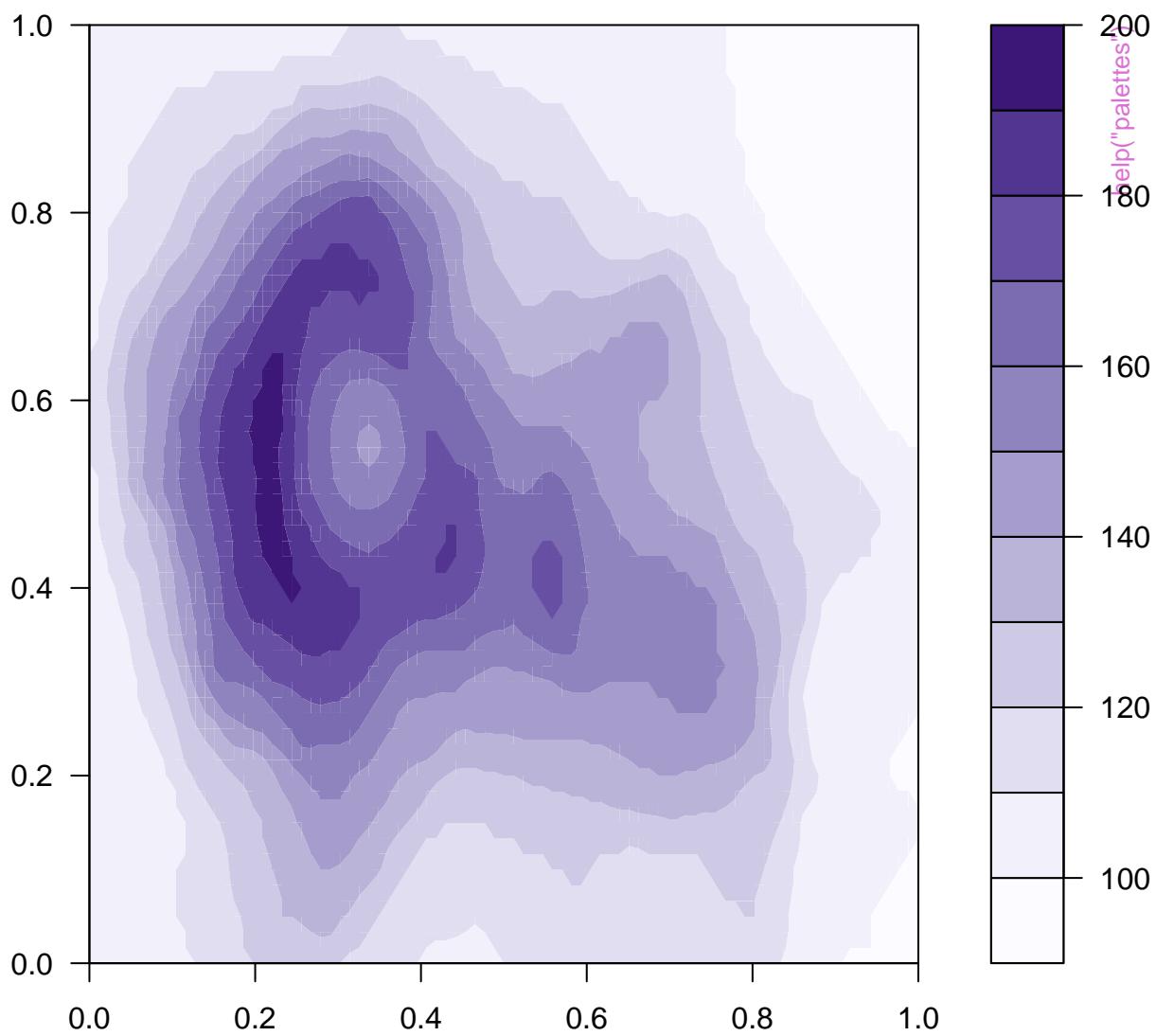


help("palettes")

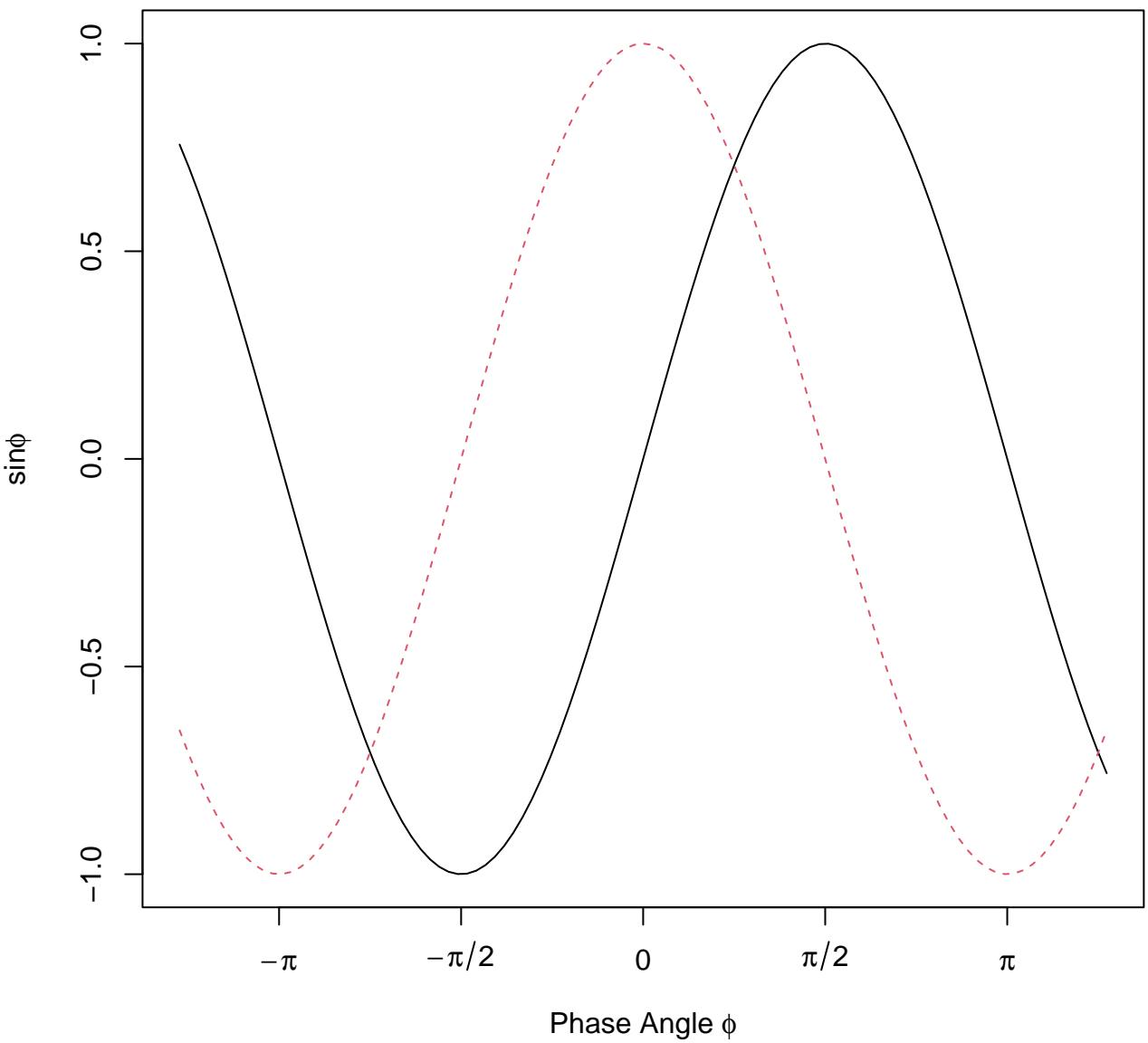


help("palettes")





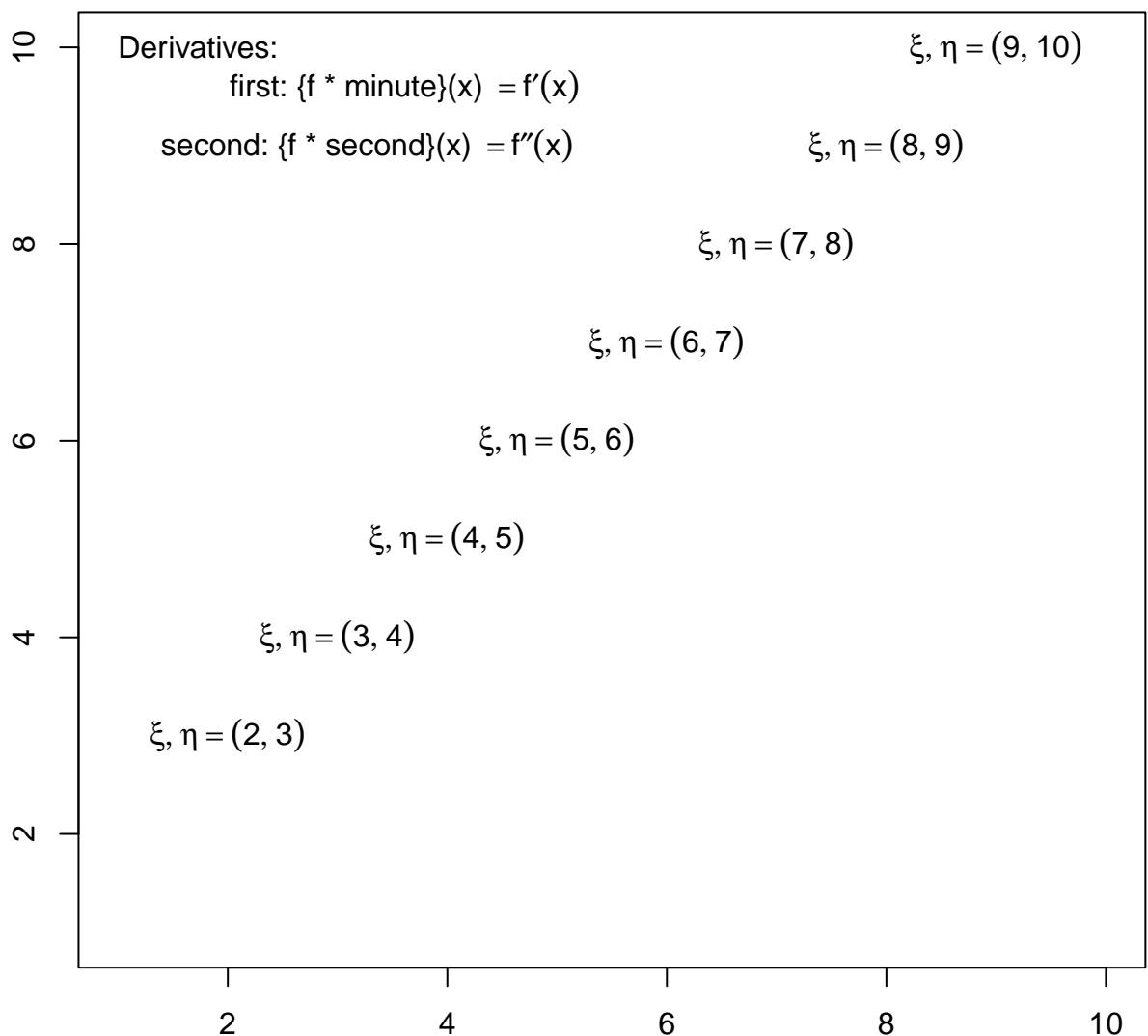
## $\sin\phi$ and $\cos\phi$



help("plotmath")

# plot math & numbers

$$\hat{\theta} = 1.23$$

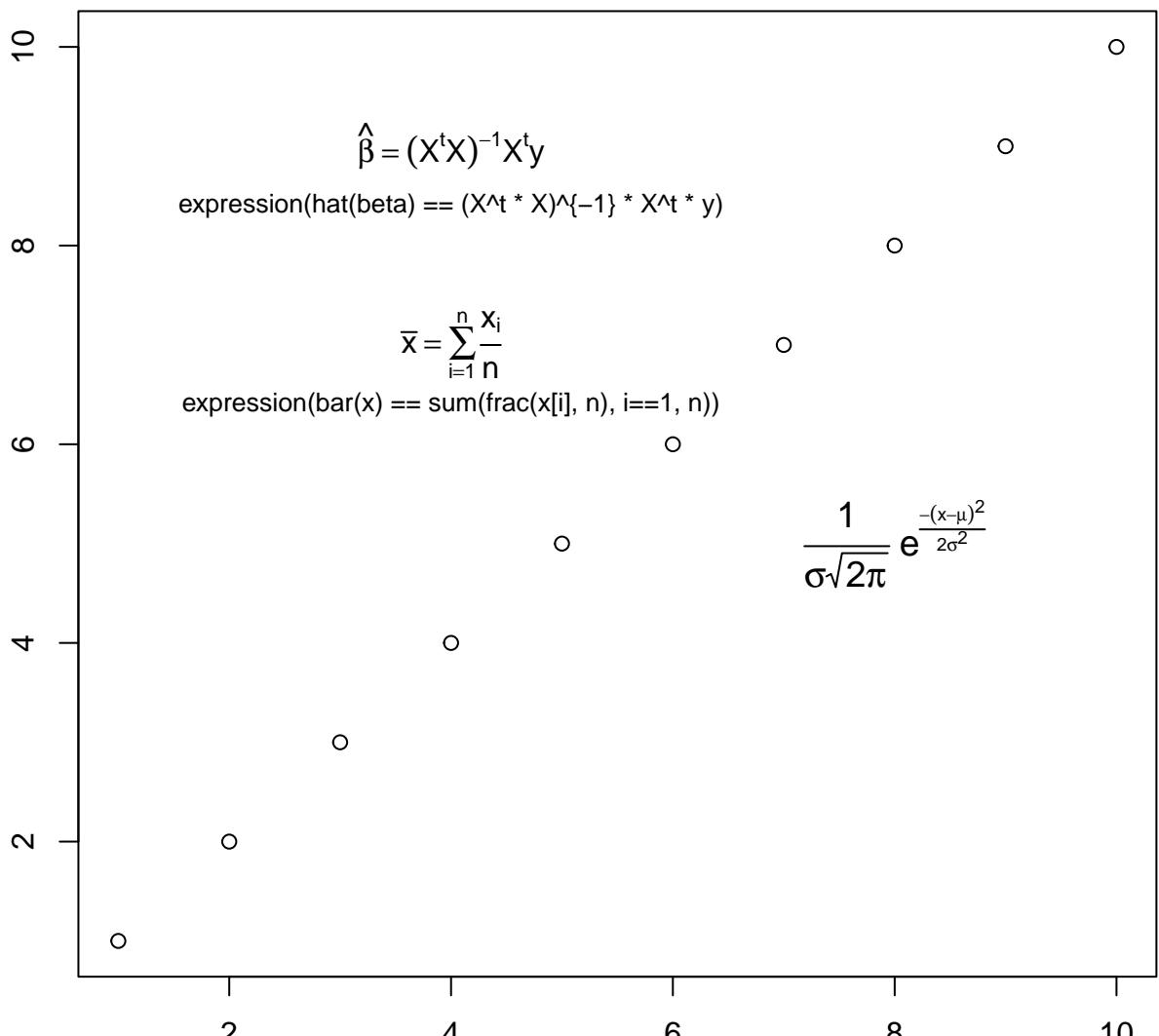


help("plotmath")

$$1 \leq 1 < 2$$

1:10

help("plotmath")

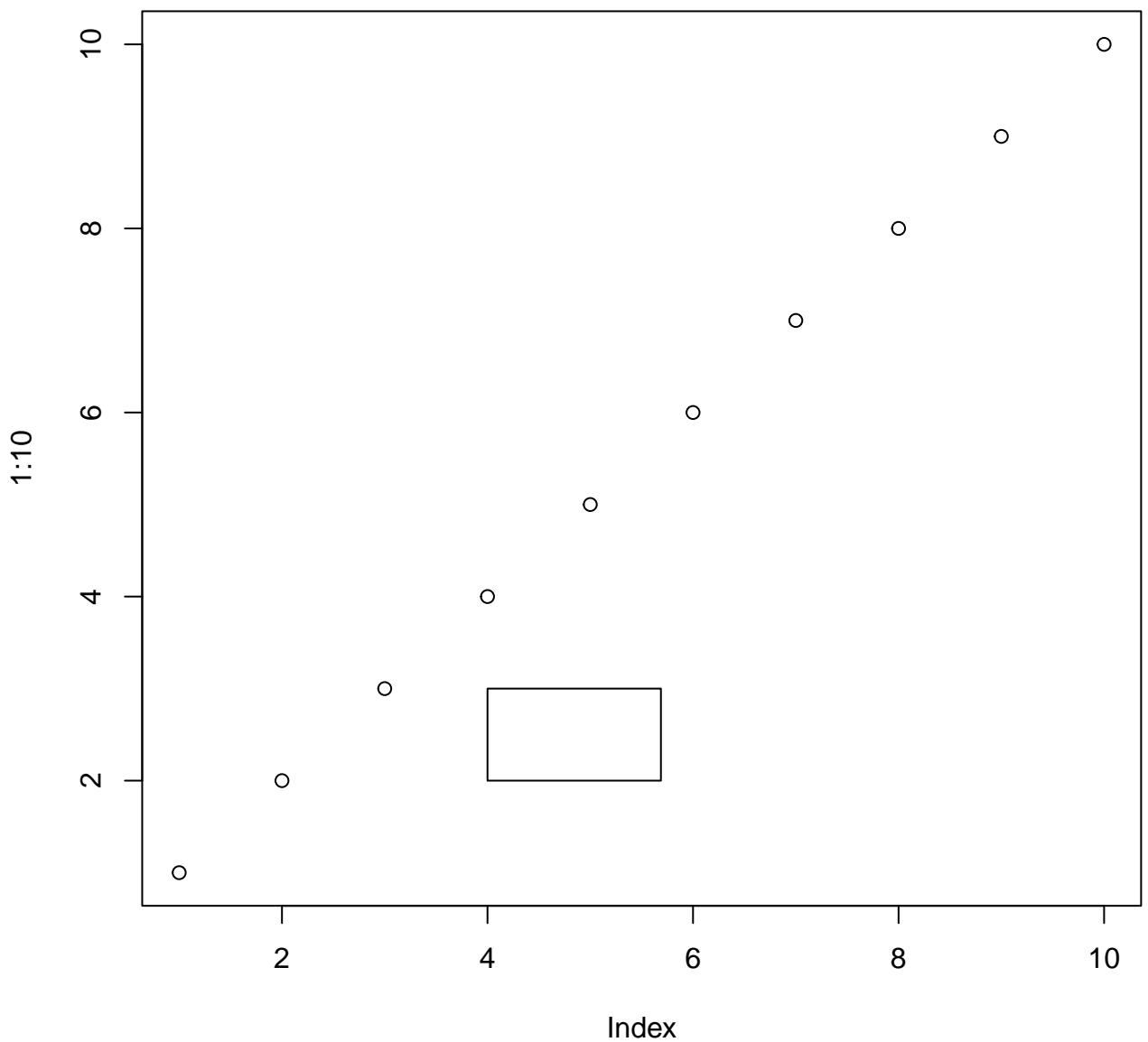


1:10

```
help("plotmath")
```

universal	\042	$\forall$
existential	\044	$\exists$
suchthat	\047	$\ni$
therefore	\134	$\therefore$
perpendicular	\136	$\perp$
circlemultiply	\304	$\otimes$
circleplus	\305	$\oplus$
emptyset	\306	$\emptyset$
angle	\320	$\angle$
lefttangle	\341	$\langle$
righttangle	\361	$\rangle$

help("recordGraphics")



help("trans3d")

