

Title of the table of content

2 Separator slide heading 1 (in case slide_level > 1) extra text a b c d e f g h i j k l m n o p q r s t Separator slide heading 2 (in case slide_level > 2) extra text a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v x y z 0 1 2 3 4 5 6 7 8 9 a

3 Typography

Fonts

- Lists

4 Other elements

Figures Mathematical formulas

Citations

5 R based output

Flanders State of the Ar



Options

Title slide

subtitle subtitle on the title slide (optional)

location place and date of the presentation on the title slide (optional)

stitute affiliation on title slide (optional)
cover background figure for the title slide. A standard figure will be used when missing cover_horizontal scale the cover figure to the width when TRUE (default) or to the height when FALSE

cover offset shift the cover figure vertically (optional) cover_hoffset shift the cover figure horizontally (optional)



Table of content

toc add a slide with table of content when TRUE (default), no table of content when FALSE

toc naam title of the slide with the table of content

slide level header level that matches with slide titles. Default: 2. Must be between 1 and 3 higher levels become separator slides



Separator slide heading 1 (in case slide_level > 1) extra text a b c d e f g h i j k l mnopqrst





Separator slide heading 1 (in case slide_level > 1) extra text a b c d e f g h i j k l

mnopqrst Separator slide heading 2 (in case slide_level > 2) extra text a b c d e f g h i j klmnopqrstuvwxyz0123456789abcdefghijklmnopqrs tuvwxyz0123456789abcdefghijklmnopqrstuvwxyz01 23456789abcdefghijkImnopqrstuvwxyz0123456789a bcdefghijkImnopqrstuvwxyz0123456789abcde

Slide title (heading = slide_level) extra text a b c d e f g h i j k l m n o p q r s t u v w x yz0123456789abcdefghijklmnopqrstuvwxyz0123456789

- ▶ The text box will automatically shring when the slide title requires more lines
- ► The text is vertically centered within the text box
- In case the title of heading 1 is too long, the first part of the title will disappear
- In case the title of heading 2 is too long, the last part of the title will disappear



Slide with too much text

- The last part of the text will disappear if it doesn't fit the slide The font size will not shrink to fit the text (like PowerPoint does)

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsa eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper stibulandersis. Pellentesque cursus luctus mauris.

Split slides automatically II

mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.



Typography

Italic font

Nam auod ait sensibus ipsis judicari voluptatem bonum esse, dolorem malum, plus tribuit sensibus, quam nobis leges permittunt, (cum) privatarum litium iudices sumus. Nihil enim possumus iudicare, nisi quod est nostri iudicii– in quo frustra iudices solent, cum sententiam pronuntiant, addere: "si quid mei iudicii est"; si enim non fuit eorum iudicii, nihilo magis hoc non addito illud est iudicatum— Quid iudicant sensus? Dulce amarum, leve asperum, prope longe, stare movere, quadratum rotundum

Split slides automatically I

- Adding { . allowframebreaks} at the end of the slide title will split long slides automatically into multiple slides
- A Roman nummeral will be added at the end of the title to each of those slides

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit

Typography

Normal font

In hac habitasse platea dictumst. Suspendisse potenti. Nulla pretium sem sit amet nisl. Nulla facilisi. Sed aliquam, turpis sed hendrerit gravida, nunc metus aliquam urna, eget pharetra nibh urna nec lectus. Duis in nisl a nisl commodo facilisis. Nunc placerat risus sed leo. Duis pellentesque porta libero. Praesent et enim. Aenean ullamcorper, ante sit amet fermentum mollis, ligula metus laoreet magna, accumsan accumsan nibh wisi at wisi. Nam tincidunt tempor neque. Maecenas dolor. Donec interdum nisl. Aliquam quam libero, interdum quis, volutpat sed, semper ut, eros. Pellentesque sodales auctor quam. Nullam suscipit massa nec elit. Nullam vulputate

Bold font

Sed haec nihil sane ad rem; illa videamus, quae a te de amicitia dicta sunt. E quibus unum mihi videbar ab ipso Epicuro dictum cognoscere, amicitiam a voluptate non posse divelli ob eamque rem colendam esse, quod, (quoniam) sine ea tuto et sine metu vivi non posset, ne iucunde quidem posset. Satis est ad hoc responsum. Attulisti aliud humanius horum recentiorum, numquam dictum ab ipso illo, quod sciam, primo utilitatis causa amicum expeti, cum autem usus accessisset, tum ipsum amari per se etiam omissa spe voluptatis. Hoc etsi multimodis reprehendi potest, tamen accipio, quod dant. Mihi enim satis est, ipsis non satis. Nam aliquando posse recte fieri dicunt nulla expectata nec quaesita voluptate.

Bold and italic font

In accumsan convallis metus. Aenean est. Donec pharetra porta odio. Duis nunc nisl, imperdiet ac, tincidunt vitae, varius sit amet, felis. Curabitur wisi. Ut iaculis, nunc in lacinia egestas, elit enim tincidunt turpis, at luctus ipsum augue condimentum metus. Aenean lorem wisi, cursus sit amet, mollis nec, porta ac, augue. Vivamus massa. Praesent rhoncus imperdiet orci. Aenean pharetra dolor ut sapien. Maecenas egestas augue semper dolor.

Available number of characters

About 66 characters with normal font

12345678911234567892123456789312345678941234567895123456789612345678971234567898 12345678911234567892123456789312345678941234567895123456789612345678971234567898 12345678911234567892123456789312345678941234567895123456789612345678971234567898 1234567891123456789212345678931234567894123456789512345678961234567897123456789867 characters with fixed width font

12345678911234567892123456789312345678941234567895123456789612345678971234567898

Special characters

€\$£ @&#\$µ^ ()|²³<>/*+- ,;:.?!~ äàáâã ëèéê îîlî öòóô üùúû ỹ ç ñ ÄÀÁÂ ËÈÉÊ ÎÎlÎ ÖÒÓÔ ÜÙÚÛ Ñ 0123456789

€\$£ @&#\$µ^ ()|²³<>/*+- ,;:.?!~ äàáâã ëèéê îlîî öòóô üùúû ÿ ç ñ ÄÀÁÂ ËÈÉÊ ÎlÎÎ ÖÒÓÔ ÜÙÚÛ Ñ 0123456789

€\$£ @&#\$µ^ ()| 23 <>>/*+- ,;:.?!~ äàáâã ëèéê îîîî öòóô üùúû ÿ ç ñ ÄÀÁÂ ËÈÉÊ ÎÎÎÎ ÖÒÓÔ ÜÙÚÛ Ñ 0123456789

€\$£ @&#\$μ^ ()|²³<>/*+- ,;:.?!~ äàáâã ëèéê îlîî öòóô üùúû ÿ ç ñ ÄÀÁÂ ËÈÉÊ ÎlÎÎ ÖÒÓÔ ÜÙÚÛ Ñ 0123456789

€\$£ @&#\$µ^ ()[]{}|²³<>/*+- ,;:.?!~ äàáâã ëèéê ïìíî öòóô üùúû ỹ ç ñ ÄÀÂÂ ËÈÉÊ ÏÌÍÎ ÖÒÔÔ ÜÙÛÛ Ñ 0123456789



Typography

Fixed width font

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetuer.

Minuscule L versus captital i

```
normal: II
        hold: II
       italics: II
 hold italics: II
fixed width font: 1I
```

Quotation marks

```
normal: "double", 'single'
bold: "double", 'single'
   italics: "double", 'single'
bold italics: "double", 'single'
fixed width font: "double", 'single',
```

Unordered list

- First level
- ▶ The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
- ltem 3
 - Second level

 - Third level
 Maximum three levels
 The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. ▶ Item c
- ltem 4

Incremental unordered list

- First level
- ightharpoonup The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
- - Second level

 - Third level Maximum three levels
 - The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - ltem c
- ltem 4

Incremental ordered list

- The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
- Item 3
 - Second level

 - Third level
 Maximum three levels
 The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - Item c
- 4 Item 4

Mixing lists

- First level
- Item 3
- Second level
 - Third level ~ Again, three levels is maximum
 - item II ~ Definition II 2 Item b
 - ltem b I
 - Item c

ltem 4

Default frame

Title of the default frame

Atque haec contra Aristippum, qui eam voluptatem non modo summam, sed solam etiam ducit quam omnes unam appellamus voluptatem. Aliter autem vobis placet. Sed ille, ut dixi, vitiose. Nec quam omnes unam appeilamus voluptatem. Ailter autem voois piacet. Sed ille, ut dixi, vitiose. Nec enim figura corporis nec ratio excellens ingenii humani significat ad unam hanc rem natum hominem, ut frueretur voluptatibus. Nec vero audiendus Hieronymus, cui summum bonum est idem, quod vos interdum vel potius nimium saepe dicitis, nihil dolere. Non enim, si malum est dolor, carere eo malo satis est ad bene vivendum. Hoc diverti potius Ennius: "Minimum boni est, cui nihil est mali". Nos beatam vitam non depulsione mali, sed adeptione boni iudicemus, nec eam cessando, sive gaudentem, ut Aristippus, sive non dolentem, ut hic, sed agendo aliquid considerandove nuaeramus.

Ordered list

- The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
- Item 3
 - Second level

 - Third level

 Maximum three levels

 The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.
 - Item c
- Item 4

List with definitions

First level Definition of the first level

An item with a long title Definition of the item with a long title

Second level Definition of the second level

Third level Maximum three levels

An item with a long tit The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy dog.

An item with a long title The quick brown fox jumps over the lazy dog. The quick

brown fox jumps over the lazy dog Item C The quick brown fox jumps over the lazy dog. The quick brown fox jumps over the lazy

dog. The quick brown fox jumps over the lazy dog. Item D Definition of D



Typography

Frame with example

Sed ut ad propositum— de dolore enim cum diceremus, ad istam epistulam delati sumus—, nunc totum illud concludi sic licet: qui in summo malo est, is tum, cum in eo est, non est beatus; sapiens autem semper beatus est et est aliquando in dolore; non est igitur summum malum dolor. Iam illud quale tandem est, bona praeterita non effluere sapienti, mala meminisse non oportere? Primum in nostrane potestate est, quid meminerimus? Themistocles quidem, cum ei Simonides an quis alius artem memoriae polliceretur, "Oblivionis", inquit, "mallem. Nam memini etiam quae nolo, oblivisci non possum quae volo."

Title of the alert frame

Title of the alert frame

Nos commodius agimus. Non enim solum Torquatus dixit quid sentiret, sed etiam cur. Ego autem arbitror, quamquam admodum delectatus sum eius oratione perpetua, tamen commodius, cum in rebus singulis insistas et intellegas quid quisque concedat, quid abnuat, ex rebus concessis concludi quod velis et ad exitum perveniri. Cum enim fertur quasi torrens oratio, quamvis multa cuiusque modi rapiat, nihil tamen teneas, nihil apprehendas, nusquam orationem rapidam coerceas. Omnis autem in quaerendo, quae via quadam et ratione habetur, oratio praescribere primum debet ut quibusdam in formulis ea res agetur, ut, inter quos disseritur, conveniat quid sit id, de quo disseratur



Other elements



Other elements

Table

	mpg	cyl	disp	hp	drat	wt	qsec	VS
Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0
Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0
Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1
Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1
Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0
Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1
Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0
Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1
Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1
Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1

Table with caption

Table: A table with the first 10 rows of the 'mtcars' dataset.

	mpg	cyl	disp	hp	drat	wt	qsec	VS
Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0
Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0
Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1
Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1
Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0
Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1
Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0
Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1
Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1
Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1



Other elements

Figure with text width



Figure with text height



Figure with caption



Figure: Picture of a forest, half text width



Other elements Mathematical formulas

In-line formulas

In-line formulas are intermixed with normal text, e.g. $P(y < Y|\theta) = \alpha$. This works best with simple formulas. Taller formulas will be reformatted to match the line height of the text, e.g. $\bar{X} = \sum_{i=1}^N X_i$. Here, i=1 and N are placed besides \sum instead of below and above. That trick doesn't hold with all formulas, e.g. fractions $\frac{\chi}{\gamma}$. In such case the font size is shrunk. Really tall formulas like $\frac{\sum_{l=1}^{N}\chi_{l}}{\sum_{l=1}^{N}\gamma_{l}}$ will require an increased interline distance. Stand-alone formulas are therefore advisable.

Numbered formulas

$$\bar{X} = \sum_{i=1}^{N} X_i \tag{1}$$

(2)

$$\frac{\sum_{i=1}^{N} \chi_i}{\sum_{j=1}^{N} Y_j} \tag{3}$$

In-line styles

- author (year)
- Onkelinx et al. (2014b)
- (author, year)
 - (Onkelinx et al., 2014b)
- (prefix author, year suffix)
 - (see Onkelinx et al., 2014b, chap. 1)
- (multiple citations to the same authors)
 - (Onkelinx et al., 2014a, 2014b)
- (multiple citations to different authors)
 (Agresti, 2002; Onkelinx et al., 2014b)

Stand-alone formulas

$$\mathit{P}(\mathit{y}<\mathit{Y}|\theta)=\alpha$$

$$\bar{X} = \sum_{i=1}^{N} X_i$$

$$\frac{X}{Y}$$



Other elements

Types of references

book (Agresti, 2002; Banerjee et al., 2003; Bolker, 2008; Diggle & Ribeiro, 2007; Franklin, 2009; Kish, 1965; Zuur et al., 2009)
chapter (Anselin et al., 2014; Degraer et al., 2013; Onkelinx et al., 2014b)
proceedings (Onkelinx et al., 2012, 2014a)
articles (Amano, 2012; Vander Mijnsbrugge & Onkelinx, 2005; Wickham, 2007; Yli-Viikari et al., 2007)
thesis (Onkelinx, 2009)
software (R Core Team, 2013)



R based output



R based output

Chunks + output I

```
## [1] TRUE FALSE
# integer
0:1
## [1] 0 1
## [1] 0.0 1.1
# scientific
c(1e-10, 1e10)
```

Chunks + output III

```
# function
my_fun <- function(x){
  cat("my function is", x)
}</pre>
}
# data.frame
state <- data.frame(
region = state.region,
Division = state.division,
state.x77
# function
my_fun("cool")
## my function is cool
```

messages
message("this is a message")

Chunks + output V

```
## Northeast : 9 South Atlantic : 8 Min. : 365 Min. :3098
## South : 16 Mountain : 8 1st Qu.: 1080 1st Qu.: 3993
## North Central: 20 West North Central: 7 Median : 2838 Median : 4519
## West : 13 New England : 6 Mean : 4246
## East North Central: 5 3rd Qu.: 4968 3rd Qu.: 4814
## East North Central: 5 Srd Qu.: 4968 3rd Qu.: 4814
## Pacific : 5 Max. : 21198 Max. : 6315
## Min. : 0.500 Min. : 67.96 Min. : 1.400 Min. : 37.80
## 1st Qu.: 0.625 1st Qu.: 70.12 1st Qu.: 4.350 1st Qu.: 48.05
## Median : 0.950 Median : 70.67 Median : 6.850 Median : 53.25
## Max. : 2.800 Max. : 73.60 Max. : 15.100 Max. : 67.30
## ## Trost Area
## Min. : 0.00 Min. : 10449
## Frost Area
## South **Common ** North Central: 5 South Atlantic ** North Central: 5 South Atlan
```

Chunks + output II

```
## [1] 1e-10 1e+10
# character
c("monday", "tuesday", "wednesday")
## [1] "monday" "tuesday" "wednesday"
factor(c("monday", "tuesday", "wednesday"))
## [1] monday tuesday wednesday
## Levels: monday tuesday wednesday
```

Chunks + output IV

```
## this is a message
 warning("this is a warning")
 ## Warning: this is a warning
 stop("this is an error")
 ## Error in eval(expr, envir, enclos): this is an error
# programma flow
if (is.data.frame(state)) {
    summary(state)
} else {
    stop("state is not a data.frame")
}
```

Chunks + output VI

```
## Median :114.50 Median : 54277
## Mean :104.46 Mean : 70736
## 3rd Qu.:139.75 3rd Qu.: 81162
## Max. :188.00 Max. :566432
    # number of characters # 10 20 30 40 50 60 70 80 90 1 100 1 ##2345578991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899123456789912345678991234567899124567899123456789912345678991234567899123456789912345678991234567899123456789912467899124678991246789912467899124678991246789912467899124678991246789912467899124678991246789912467899124678991246
```

Using values calculated by R in plain text

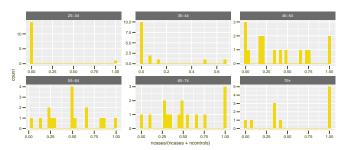
Mixing R output and text is straightforward. E.g 1+1=2. Just make sure that you can use a single and simple command. Precalculate the output in case you need more elaborate calculations. E.g the life expectancy in the USA is 70.9 (68.2; 72.9) years.



R based output

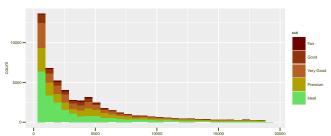
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Figure with default colour



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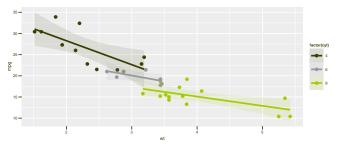
Figure with discrete colours



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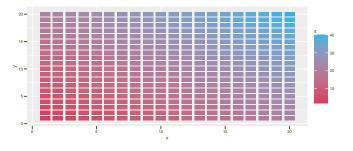
Figure with discrete colours

'geom_smooth()' using formula 'y \sim x'



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Figure with single colour gradient

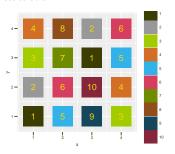


61/

Figure with colour gradient over a central colour



Default order of discrete colours



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R based output

Booktabs kable()

X1	X2	Α
-0.41	0.56	aypthpic agn rjszh lwpqz
-1.14	0.45	muwa di zywa
0.90	0.58	ihz
-0.64	-0.05	knqn ukw sdu je
-0.84	-0.96	uc Iteel vo zcb dtnbwv
0.82	-0.44	fynvv papuko oc ac xemw qvklf
-1.33	0.89	nwv tmzo rrv lhqw
0.39	0.86	tn ilzkiqcw lebc
-0.19	-1.04	evtvd fxolmv jfzl nu
1.82	0.91	kyzuh wnx azoc qrgoij foukdg m
-0.45	1.22	qwpq
0.09	0.56	dc vjmjakm ydtes
0.35	-0.79	xnqj ne qkakpn blbuufuyv egljxd
-1.07	0.24	unki b fzxgs waapzz bush
-1.32	-0.66	surcmzwwd ldf q nvdehmg jixby j lrmp
	-0.41 -1.14 0.90 -0.64 -0.84 0.82 -1.33 0.39 -0.19 1.82 -0.45 0.09 0.35 -1.07	X1 X2 -0.41 0.56 -1.14 0.45 0.90 0.58 -0.64 -0.96 0.82 -0.44 -1.33 0.89 0.39 0.86 -0.19 -1.04 1.82 0.91 -0.45 1.22 0.09 0.56 0.35 -0.79 -1.07 0.24

Markdown kable()

	X1	X2	A
rij 1	0.75	-0.17	wwtzncpoc riuf j
rij 2	-0.82	0.40	fmzlv dq dic rpwwgixqlg ar
rij 3	-0.28	1.40	gqyba hwqi tx suqnx
rij 4	-0.96	0.20	nly cpklmk czxldi mih oso hmyjas ijgdszv vlt
rij 5	0.45	-0.09	tuf agwwcskeql pojwno qfkisw wyzyp
rij 6	0.07	0.18	te sjutcyw ct mgiz xanoq
rij 7	0.31	0.98	oqrg nmdnx
rij 8	-0.38	0.47	kzmzvhs iox pkxtqy dgx bwv hsks
rij 9	0.72	-0.34	jewvgx pujzh mngftsl tbk pawt bti
rij 10	0.85	0.37	fuyjzub pcbva qb hze drox
rij 11	0.73	0.43	q qyamv lay m
rij 12	0.63	-0.74	pq iqjyk citwt cmujtl
rij 13	1.44	0.91	deun qpd rf xlh tku
rij 14	0.61	-1.47	mqoh sy wz znhk
rij 15	-2.15	0.79	dup tduq



Default kable()

	X1	X2	A
rij 1	-0.86	-1.63	jkccj vxtee bva qq qmveltg
rij 2	-0.25	-1.67	ndlmkxq irqik
rij 3	-0.10	-0.27	Ilr empw xxi
rij 4	0.34	0.65	pmpd unfovt bjjau vzeeyxb
rij 5	-0.02	-0.35	qmm ipu
rij 6	2.10	-0.21	ocpvldsex kegll dehv wjek ypsjlyu zpkyfx vzi
rij 7	-1.05	1.09	zj mwp ul
rij 8	0.75	1.23	sumcr vu
rij 9	0.28	-0.06	nxrk wgocx fphnfe wxmg
rij 10	0.11	-0.08	ljm tgjdgce
rij 11	-1.56	-1.93	nmfxde yoe y wd dbokbjyjs txng
rij 12	1.21	-0.33	vc jlmhypx fc hellhckiv zeon vsya mt
rij 13	-0.47	-1.13	dhh vxxouxrolr ohbi icvc mu
rij 14	0.18	-0.07	uq
rij 15	-0.11	1.75	swoqg gq

longtable kable()

	X1	X2	Α
rij 1	0.58	0.47	xickd zpf n
rij 2	-0.05	-1.59	xqi qisaf vvbvvrn sxfmte
rij 3	-1.19	0.26	jx xzf fom
rij 4	-2.57	0.23	wf lzh e
rij 5	-0.67	-0.83	spm qoev zf
rij 6	-0.38	0.33	dc emwbqm yzo iroan fsnkbq
rij 7	-0.72	0.97	
rij 8	-0.46	1.14	p itqy xz gpawsxme fta
rij 9	-1.07	-0.14	qikg xgedno r kyzvotz
rij 10	-1.69	-1.67	
rij 11	1.38	-0.40	pl njhg ya ht l cifcb y
rij 12	-1.46	-1.18	mfbk
rij 13	-0.56	1.32	todx inua rqvgx mq sik lqb
rij 14	1.41	0.35	pmanznrn vamko
rij 15	0.54	-0.44	jegyt njdkm

Pandoc kable()

	X1	X2	Α
rij 1	-0.35	-0.18	orwm mcb zricb zxwdsvnj pmarep
rij 2	-1.73	-1.07	j qwq
rij 3	-1.50	1.69	ef juj qolyat ciefk
rij 4	-0.48	1.50	l xbzui kla tbhkd
rij 5	-0.14	-1.16	Inrz k dnqyx
rij 6	-0.05	0.51	
rij 7	0.95	-0.14	koas n kvncve kduhsv kst f uez
rij 8	-0.17	0.35	cx ry vzbb nqsq muvs
rij 9	1.18	0.24	st fg pfpz bzta
rij 10	0.82	-1.84	hyof oxnnr hqn
rij 11	-0.40	-0.76	dfzuq clsr p co
rij 12	2.03	-1.18	
rij 13	-0.59	0.26	dlhsuk zdftpphtv sx ygo blfllkgx gewp ugejbg
rij 14	-0.84	0.24	xaes ahsb
rij 15	-1.22	0.38	Isl

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