Introduction to Statistics with R : : **CHEAT SHEET** from workshop

Basics

summary function

Parametric distributions

BERNOULLI (p)

An event with two possible outcomes.
The probability of outcome with "success" is p.

```
rbinom(1, 1, p)
```

BINOMIAL (n, p)

The number of successes out of n cases where each case is independent and has the same probability of success p.

The sum of n Bernoulli random variables with probability p.

```
rbinom(1, n, p)
```

NORMAL / GAUSSIAN (μ, σ)

```
rnorm(1, mean, sd)
```

T (degrees of freedom)

```
rt(1, df)
```

Useful Elements

CODE

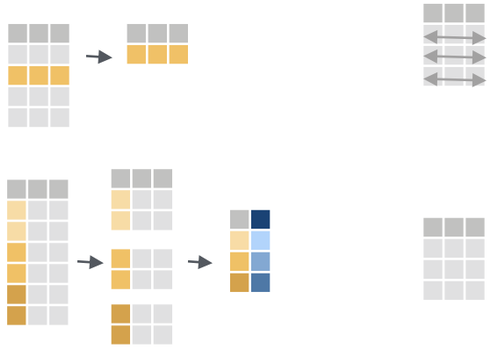
Where possible, use **code that works** when run.

```
ggplot(mpg, aes(hwy, cty)) +
 geom_point(aes(size = fl)) +
 geom_smooth(method ="lm")
```

Word balloons | can help explain | code

These are just **font awesome** characters

MOCK TABLES



MOCK GRAPHS

TABLES

sub-option	description
citation_package	The LaTeX package to process citations, natbib, biblatex or none
code_folding	Let readers to toggle the display of R code, "none", "hide", or "show"
colortheme	Beamer color theme to use

Logistics

FONTS

KEYNOTE

KEYNOTE TIPS

 Emi Tanaka • dr.emi.tanaka@gmail.com. • emitanaka.org • Learn more at **webpage or vignette** • Updated: 2025-02

Three Column Layout: : **CHEAT SHEET**

Basics

Thank you for making a new cheatsheet for R! These cheatsheets have an important job:

Cheatsheets make it easy for R users to look up useful information.

Remember that the best cheatsheets are **visual**—not written—documents. Whenever possible use visual elements to make it easier for readers to find the information they need.

1. Use a **layout** that flows and makes it easy to zero in on specific topics.

2. Use **visualizations** to explain concepts quickly and concisely.

summary function

3. Use visual elements to make the sheet **scannable**.

i + geom_area()
x, y, alpha, color, fill, linetype, size

i + geom_line()
x, y, alpha, color, group, linetype, size

4. Use visual **emphasis** (like color, size, and font weight) to make important information easy to find.

dplyr::**lag()** - Offset elements by 1
dplyr::**lead()** - Offset elements by -1

Layout Suggestions

Use headers, colors, and/or backgrounds to **separate or group together sections**.

Section 1 | Section 2 | Section 3

Manipulate Variables

Create a visual hierarchy. Help users navigate the page with titles, subtitles, and subsubtitles

Title

SUBTITLE

SUBSUBTITLE

Quickly identify content with a **package hexsticker** (if available)

Fit sections to content. Try several different layouts.

Use numbers or arrows to link sections if the order/**flow** is confusing.

Logistics

FONTS

This template uses several fonts: **Helvetica Neue, Menlo**, **Source Sans pro**, which you can acquire for free here, www.fontsquirrel.com/fonts/source-sans-pro, and **Font Awesome**, which you can acquire here, fortawesome.github.io/Font-Awesome/get-started/

To use a **font awesome** icon, copy and paste one from here fortawesome.github.io/Font-Awesome/cheatsheet/. Then set the text font to font awesome.

KEYNOTE

I make my cheatsheets in **Apple Keynote**, and not latex or R Markdown, because presentation software makes it much easier to tweak the visual appearance of a document

KEYNOTE TIPS

- **Select multiple elements** by holding down shift and then selecting each. Click on a selected element before letting go of shift to unselect it.
- To **group elements together.** Select them all , then click Arrange > Group
- To **evenly space multiple objects**, select them all then Right Click > Align objects or Right Click > Distribute objects
- Click on a table, then visit Format >Table > Row and Column Size to make **even width rows/columns**.

Useful Elements

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 geom_point(aes(color = cyl)) +
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YOUR LOGO
(optional)