

Instructional Video Examples from Statistics and Data Science Classes

Mine Dogucu

2021-02-04

The Digital Active Learning Workshop

bit.ly/2021-DTEI



Spring 2020

Stats 7 - Basic Statistics
Stats 112/203 - Statistical Methods for Data Analysis III



Summer II 2020

Stats 67 - Intro to Probability and Statistics for
Computer Science
Stats 115 - Introduction to Bayesian Data Analysis



Fall 2020

ICS 80 - Introduction to Data Science
Stats 295 - Advanced R

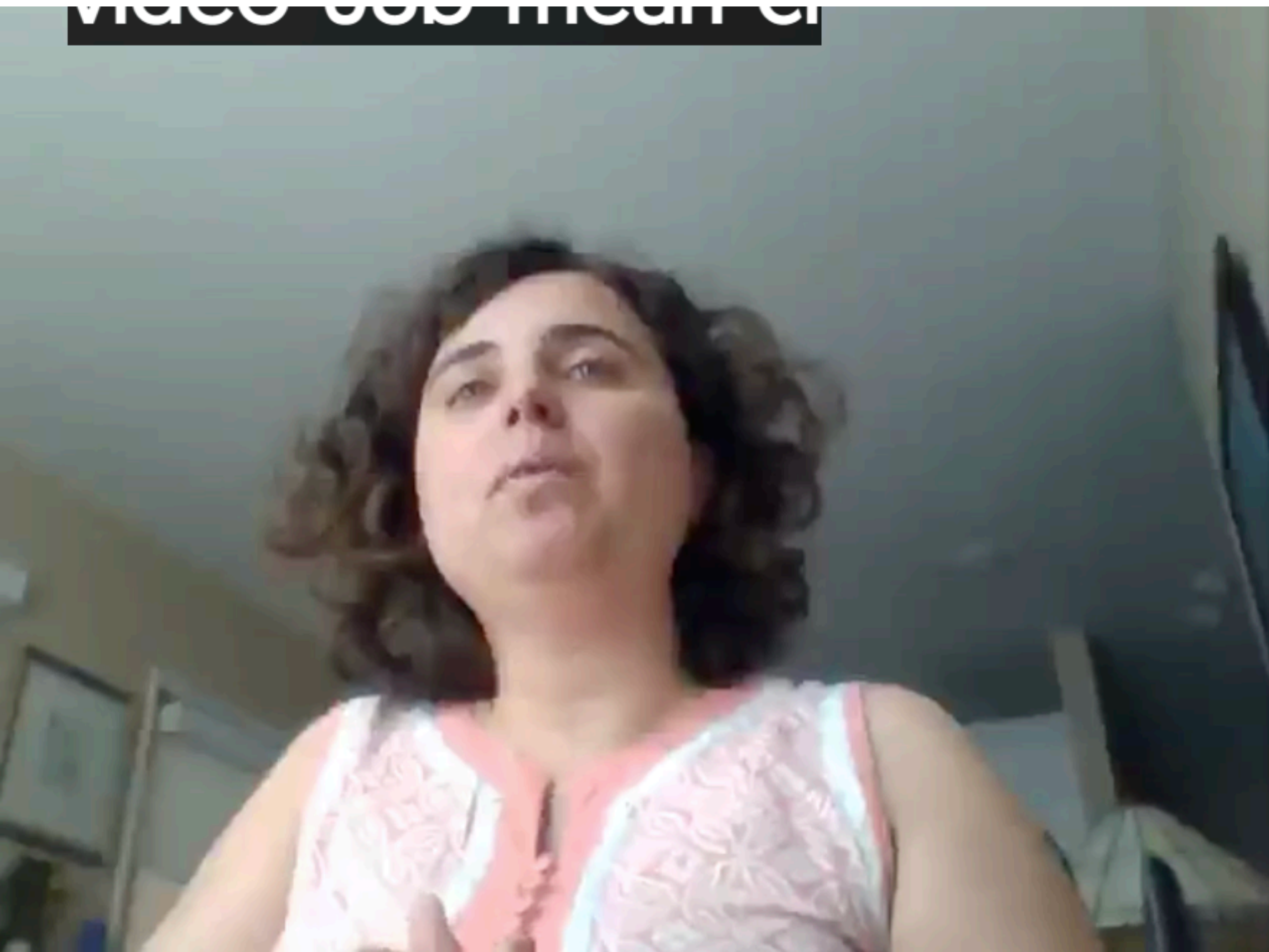


Winter 2021

ICS 80 - Introduction to Data Science
Stats 115 - Introduction to Bayesian Data Analysis

Spring 2020

video 00b mean ci



YuJa 2.0

Statistical Inference for Single Mean

RStudio Cloud

file:///C:/Users/Mine Dogucu/Desktop/stats7-sp20-website/slide/slide-08b-mean-ci.html#3

Confidence Interval for Single Mean

point estimate $\pm$ critical value $\times$ standard error

$\bar{x} \pm$ critical value $\times$ standard error

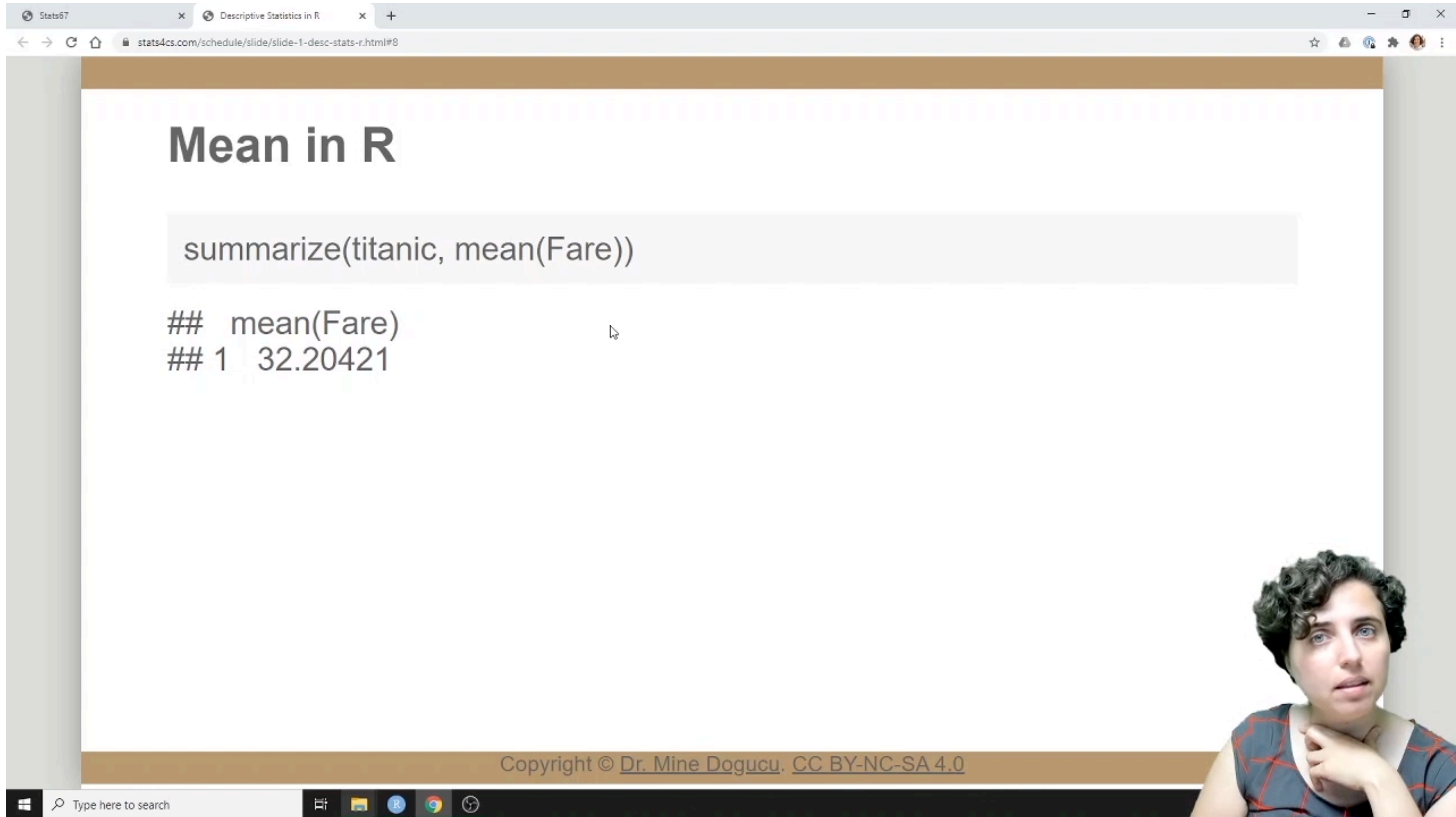
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3 / 13

Type here to search

3:53 PM 5/17/2020

Summer 2020



The screenshot shows a web browser window with two tabs: 'Stats67' and 'Descriptive Statistics in R'. The address bar shows the URL 'stats4cs.com/schedule/slide/slide-1-desc-stats-r.html#8'. The slide content is as follows:

Mean in R

```
summarize(titanic, mean(Fare))
```

```
## mean(Fare)  
## 1 32.20421
```

At the bottom of the slide, the copyright notice reads: 'Copyright © Dr. Mine Dogucu. CC BY-NC-SA 4.0'. In the bottom right corner of the browser window, a woman with curly hair is visible, looking at the camera with her hand near her chin.

OBS Tutorial

Fall 2020 and onwards



The Pipe Operator

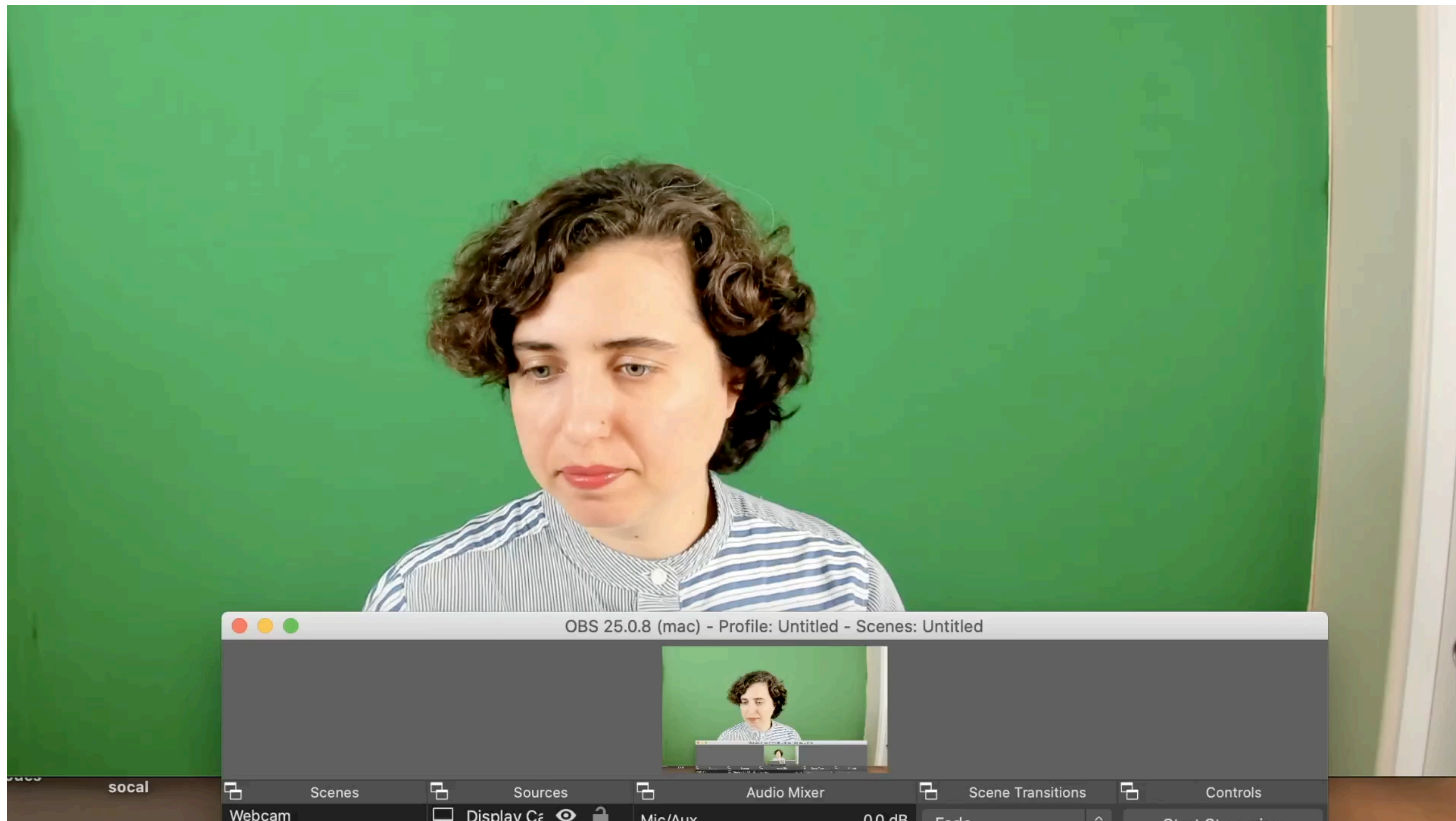
Dr. Mine Dogucu



Video 1 - green screen + me



Video 2 - slides + my voice

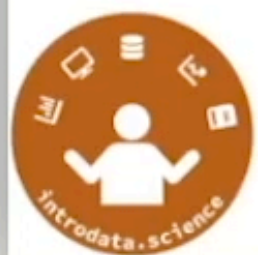


It is not always about editing

```
c(4, 8, 16) %>%  
  mean() %>%  
  round()
```

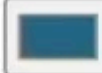
```
## [1] 9
```

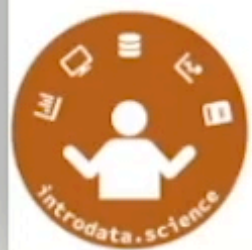
Combine 4, 8, and 16 **and then**
Take the mean **and then**
Round the output



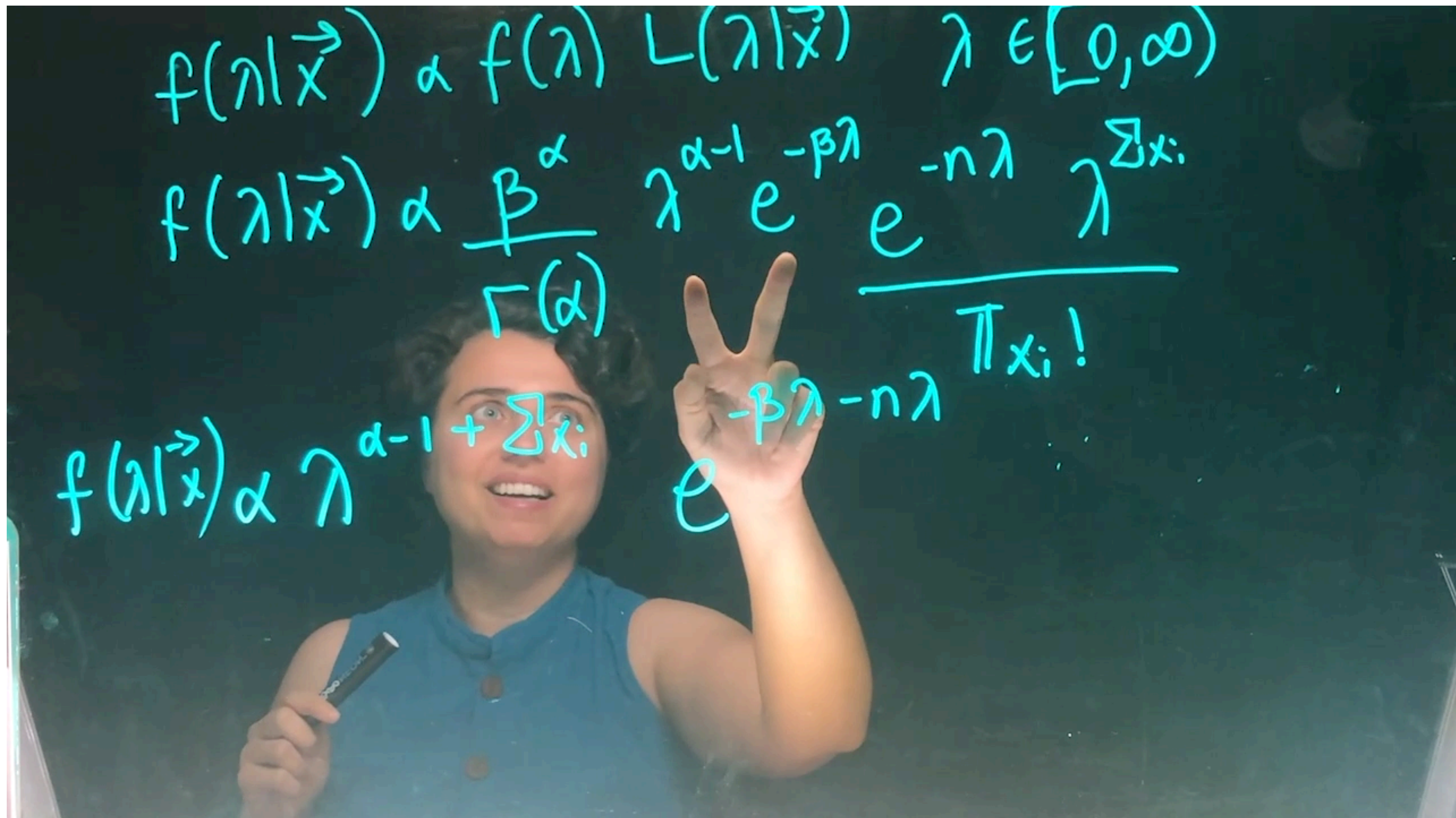
Writing with iPad

```
c(4, 8, 16) %>%  
  mean() %>%  
  round()
```

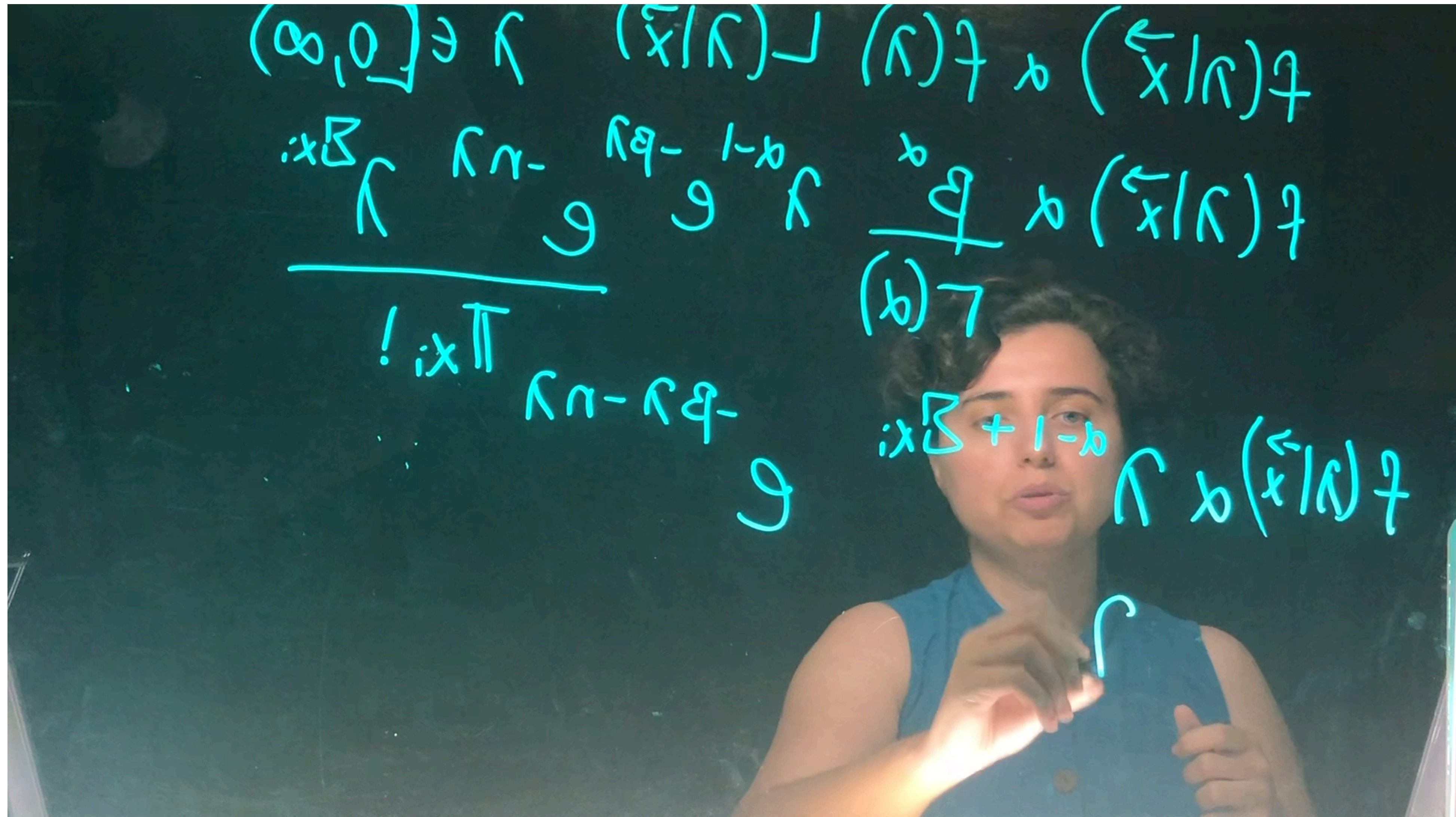
☐  Export



Writing with a Lightboard



Writing with a Lightboard - Unedited



DIY Lightboard Instructions

More videos are available under Schedule on course websites:

[introdata.science](#)

[stats115.com](#)

[stats4cs.com](#)

[scicompr.com](#)

Week 1, Jan 4 - 8, Introduction to the Course and Data				
Week 2, Jan 11 - 15, Summarizing and Exploring Data with Visuals				
		Notes	Links	Due
☐	Welcome to Week 2			
☐	Introduction to Data Visualization		 	
☐	Introduction to ggplot		 	
☐	Data Visualization Vocabulary Quiz			Jan 14, 11:59 pm
☐	More ggplot		 	
☐	Data Visualization Quiz	In the repo for weekly materials. After you are done, do not forget to push it.		Jan 14, 11:59 pm
☐	Top Ten Dos and Don'ts for Charts and Graphs	Required reading		
☐	Homework 2	Timed, 40 minutes.		Jan 22, 11:59 pm

More details about the process are available at:
DataPedagogy.com

Behind the scenes



Questions?



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