

Course webpage

<https://tinyurl.com/hbc-trr-nanocourse>

Course schedule online

Nanocourse Schedule

Day 1

Time	Topic	Instructor
13:00 - 13:10	Introduction to Nanocourse	Radhika
13:10 - 13:30	R3 (Research, Rigor, Reproducibility) & Me	Jelena
13:30 - 13:40	Setting up	Radhika
13:40 - 14:25	RMarkdown Basics	Meeta
14:25 - 14:30	Break	
14:30 - 15:15	RMarkdown Intermediate	Radhika
15:15 - 15:30	Assignment review	Meeta

Assignment #1

- [Practice with RMarkdown](#)
- Upload the files requested in the above exercise to **Dropbox day before the next class.**
- [Email us](#) about questions that you need answered to work through the exercise.
- Post questions that you would like to have reviewed in class [here](#).

Course materials online



Learning Objectives

- Use code chunk options to customize the report
- Describe how to add figures and tables to an RMarkdown
- Describe how to specify the output format for RMarkdown

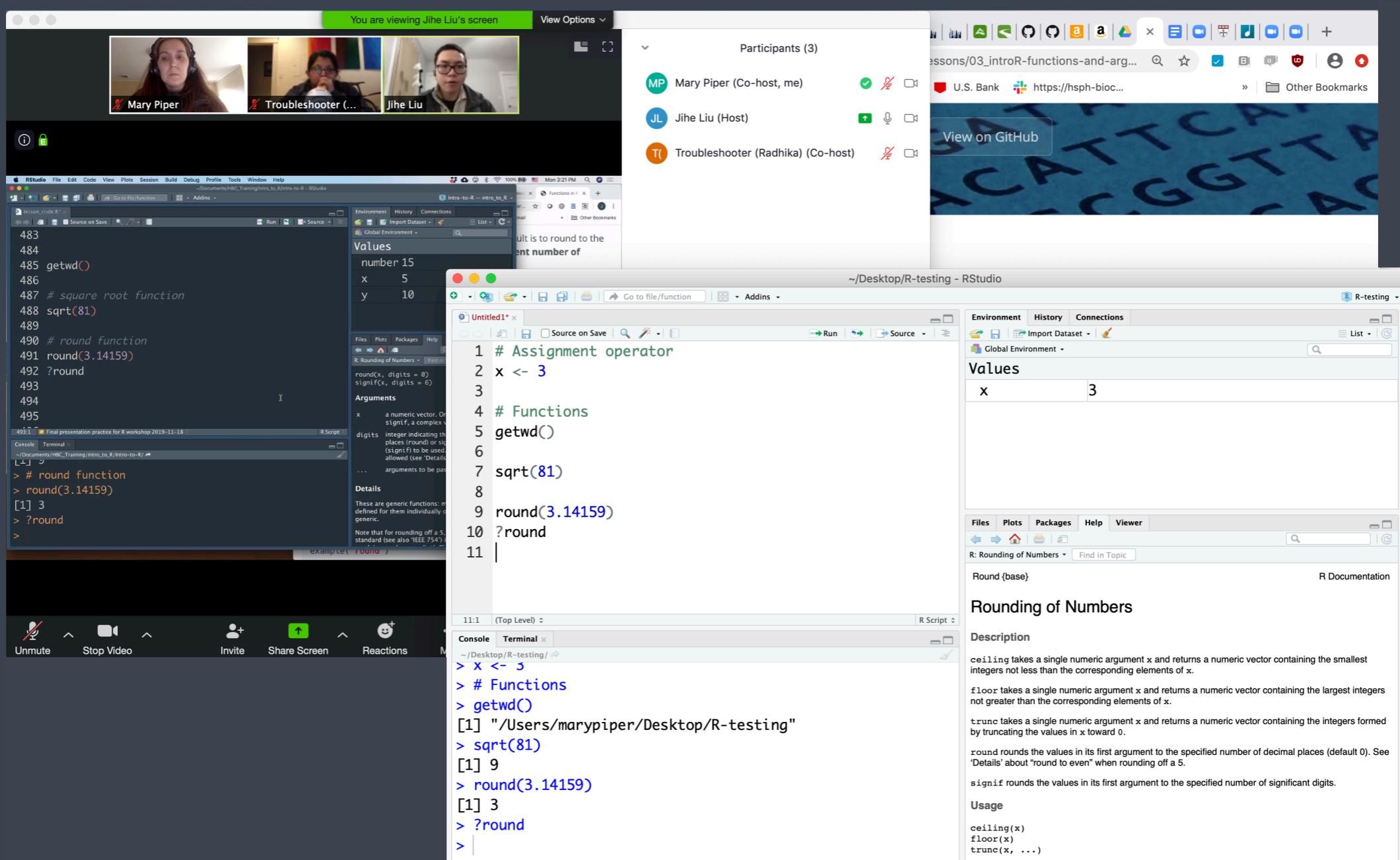
More about Code chunks

By this point, we have mentioned the word “knit” quite a few times, and you have installed and loaded the `knitr` package too. But, we have not yet fully defined what it is. `knitr` is an R package, developed by Yihui Xie, designed to convert RMarkdown and a couple of other file formats into a final report document in HTML or PDF or other formats.

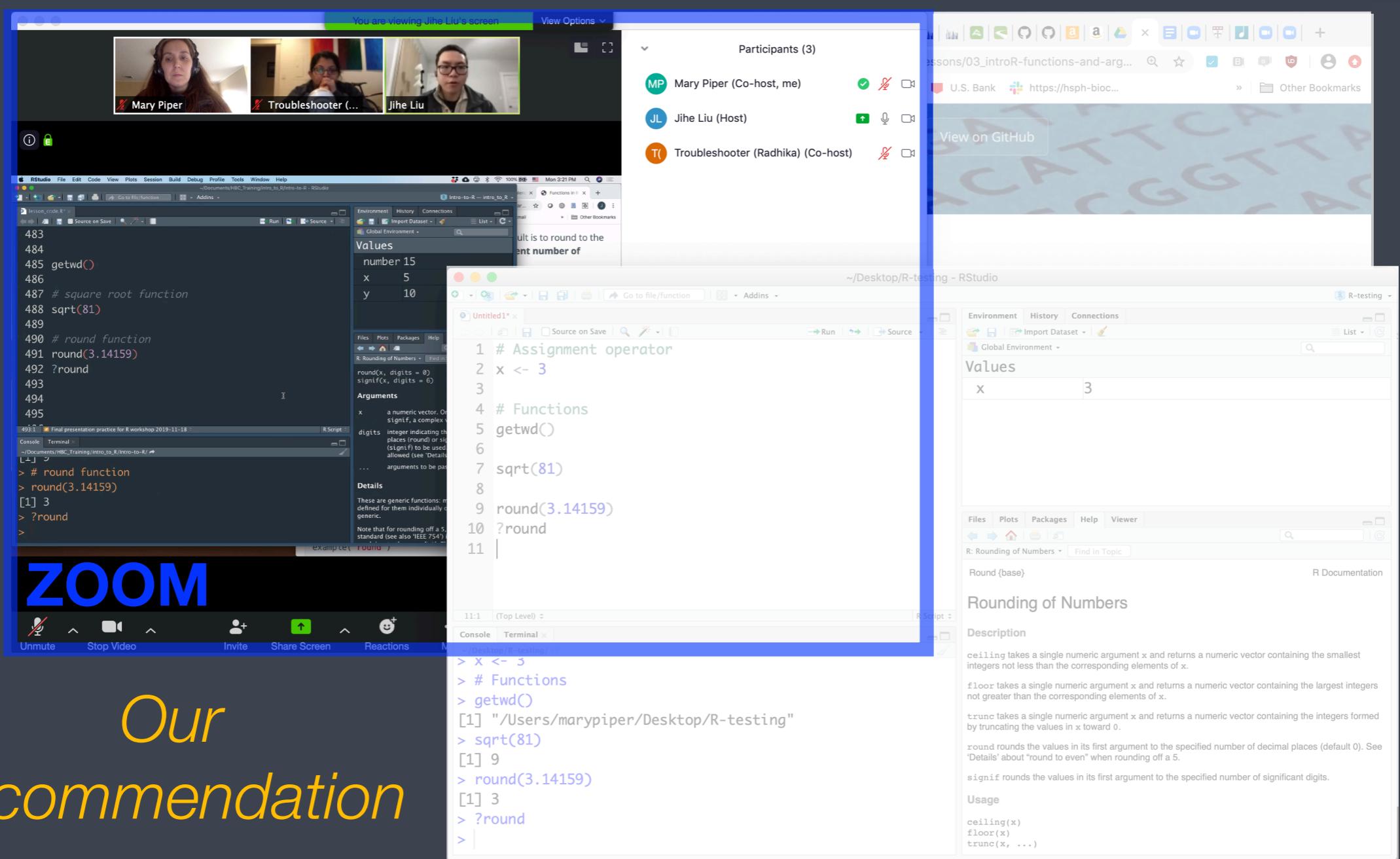
The `knitr` package provides a lot of customization options for code chunks embedded within the file. These options are written in the form of `tag=value`.

```
```{r chunk-name, echo=FALSE, warning=FALSE, message=FALSE}
x <- 4
y <- 2
x + y
```
```

Single screen & 3 windows?

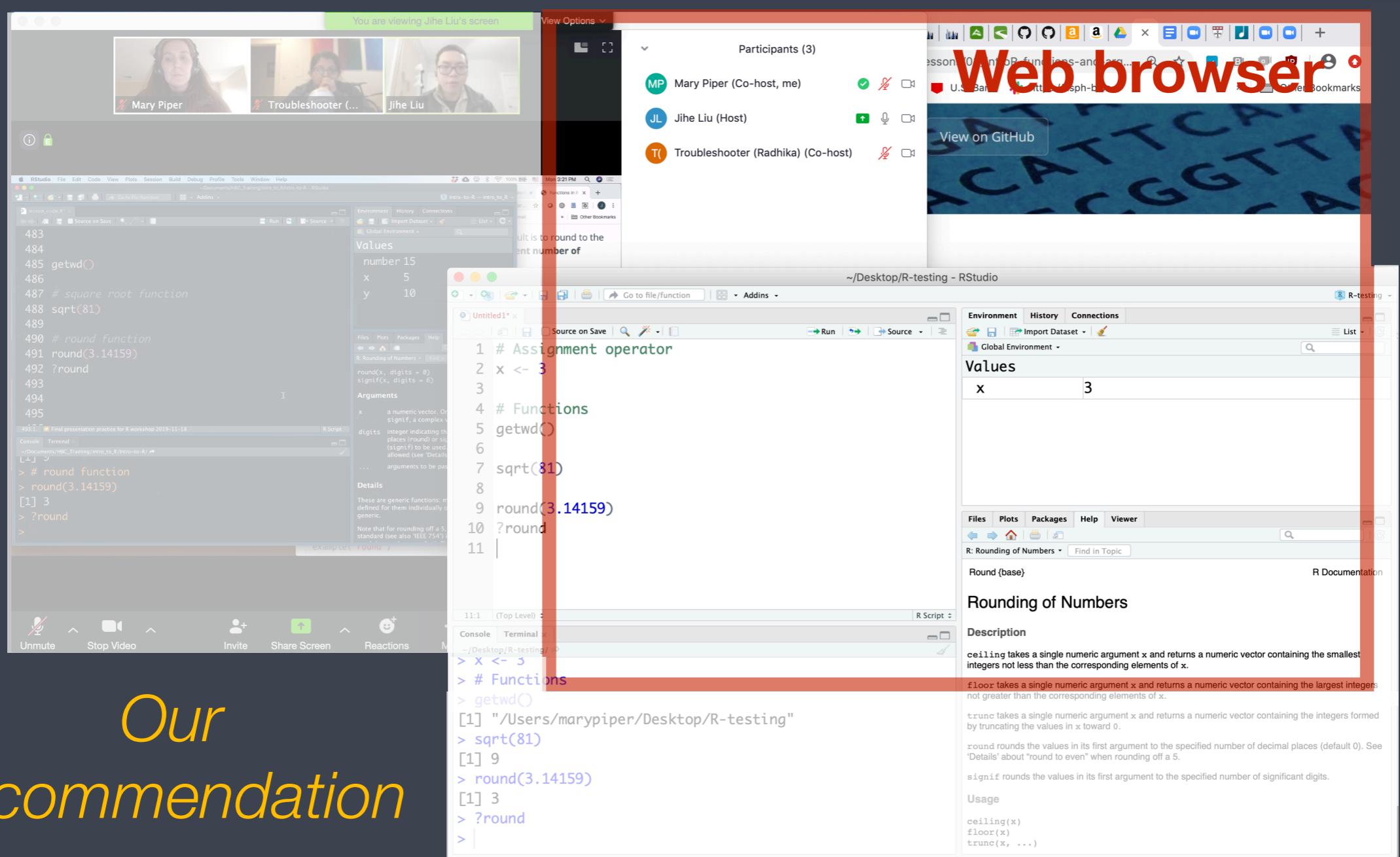


Single screen & 3 windows?



*Our
recommendation*

Single screen & 3 windows?



Our
recommendation

Single screen & 3 windows?

The image shows a video conference interface with three windows:

- Top Left Window:** A video feed showing three participants: Mary Piper, Troubleshooter (Radhika), and Jihe Liu.
- Middle Left Window:** An RStudio session titled "intro_to_R -- intro_to_R.R" containing the following R code:

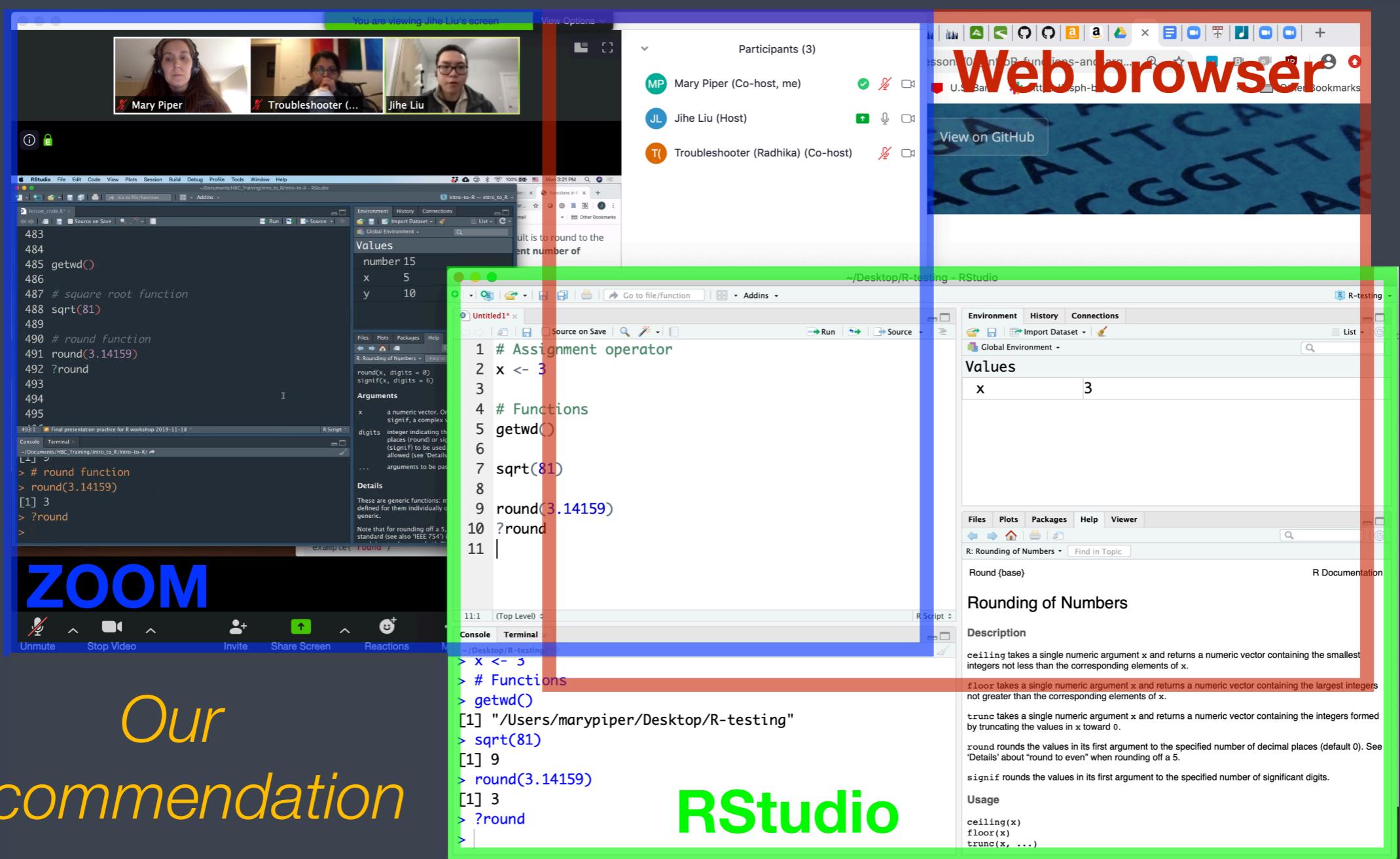
```
483  
484  
485 getwd()  
486  
487 # square root function  
488 sqrt(81)  
489  
490 # round function  
491 round(3.14159)  
492 ?round  
493  
494  
495
```
- Bottom Left Window:** An RStudio session titled "Untitled1*" containing the following R code:

```
1 # Assignment operator  
2 x <- 3  
3  
4 # Functions  
5 getwd()  
6  
7 sqrt(81)  
8  
9 round(3.14159)  
10 ?round  
11
```
- Top Right Window:** A web browser window showing a GitHub page for "introR-functions-and-args".
- Middle Right Window:** An RStudio session titled "~/Desktop/R-testing - RStudio" containing the following R code:

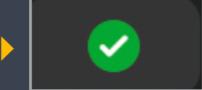
```
11:1 (Top Level) >  
Console Terminal x  
~/Desktop/R-testing/ >  
> x <- 3  
> # Functions  
> getwd()  
[1] "/Users/marypiper/Desktop/R-testing"  
> sqrt(81)  
[1] 9  
> round(3.14159)  
[1] 3  
> ?round  
>
```
- Bottom Right Window:** A detailed view of the "R: Rounding of Numbers" documentation page in RStudio.

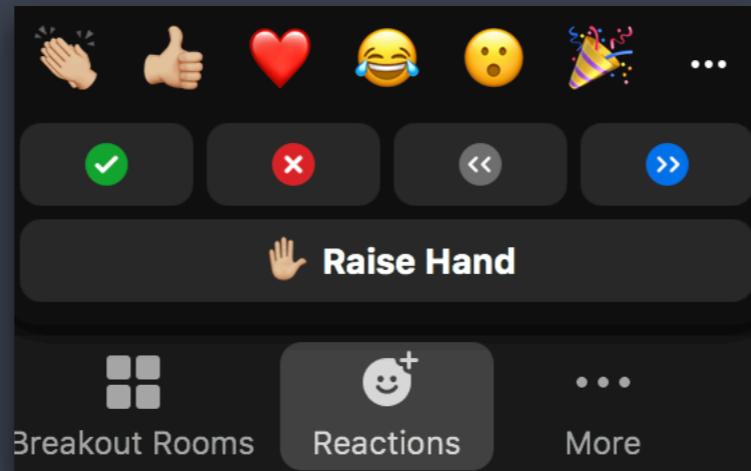
Our recommendation: RStudio

Single screen & 3 windows?



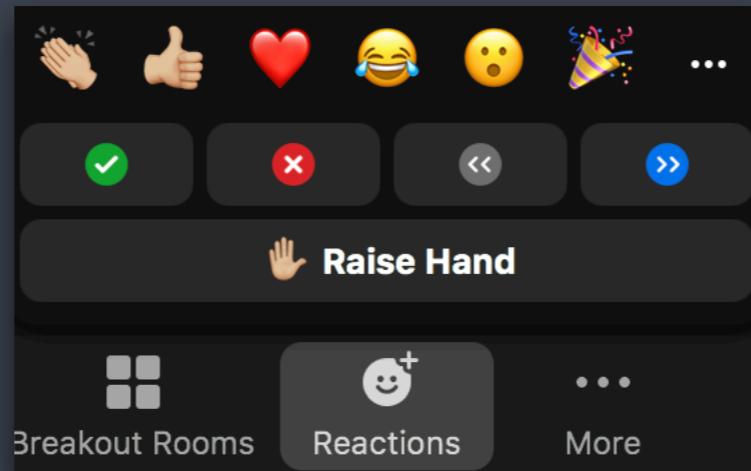
Odds and Ends

- ❖ Quit/minimize all applications that are not required for class
- ❖ Are you all set?
 - ▶  = "agree", "I'm all set" (equivalent to a **green post-it**)
 - ▶  = "disagree", "I need help" (equivalent to a **red post-it**)



Odds and Ends (2/2)

- ❖ Questions for the presenter?
 - Post the question in the Chat window OR
 -  when the presenter asks for questions
- ❖ Technical difficulties with software?
 - Start a *private* chat with the *Troubleshooter* with a description of the problem.



Thanks!

- [Data Carpentry](#)

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