Visualizating pHake Lake Temperature Profiles

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Downloading and Uploading Data

1. Download the data from Google Sheets as a csv file (Note where on your computer the file is saved!)
2. Start Rstudio Server (rstudio.pomona.edu)
3. Create New Folder called pHake_Lake
4. Upload data into pHake_Lake folder

Import into R

1. Create an R Markdown file and give it a title and select pdf for the output.
2. Save the file as R_pHakeLakeTempProfile.Rmd
3. Use file.choose() in the console to select the file and path of the csv.
4. Using your path, change the code below to match your path and file name, where you are specifying path to the temp.csv object.
5. Run the modified code below to import into R.

```
temp.csv <- "/home/mwl04747/RTricks/01_Introduction_to_R/Temperature Profile Data Entry - Test.csv"
temp = read.csv(temp.csv)
```

6. If the code works, add a comment line for each function to explain what it does. Comments begin with a #.

Check the Data have been imported correctly

```
ls()
```

```
## [1] "temp"     "temp.csv"
```

```
names(temp)
```

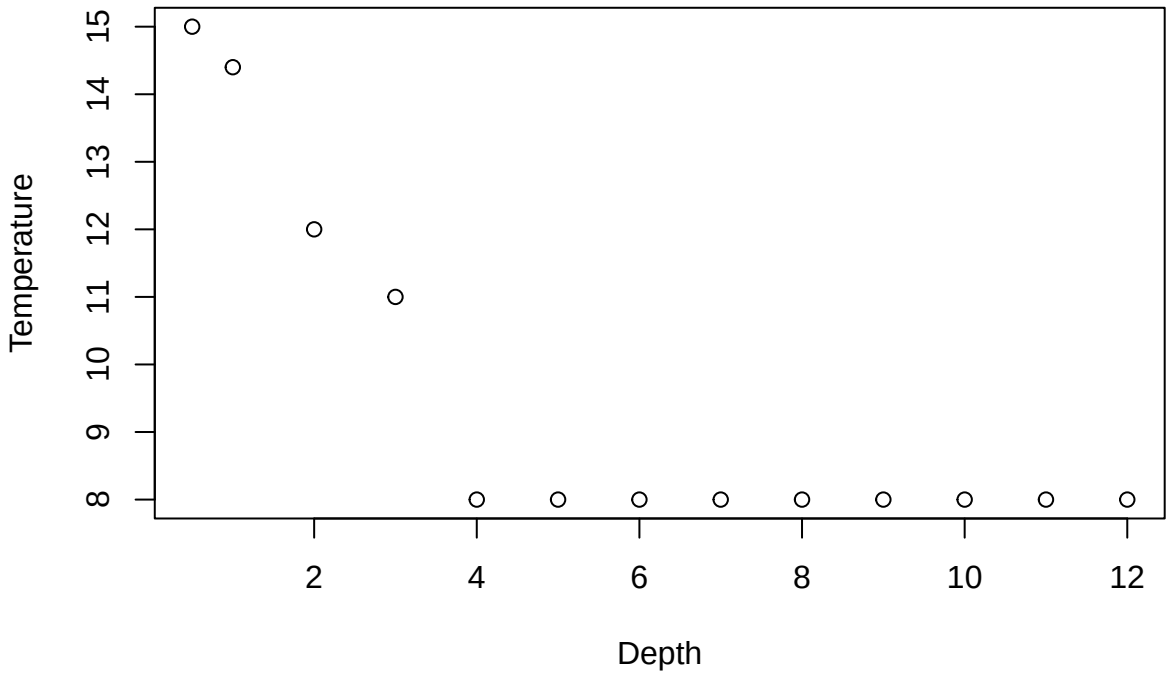
```
## [1] "Depth"       "Temperature"
```

```
str(temp)
```

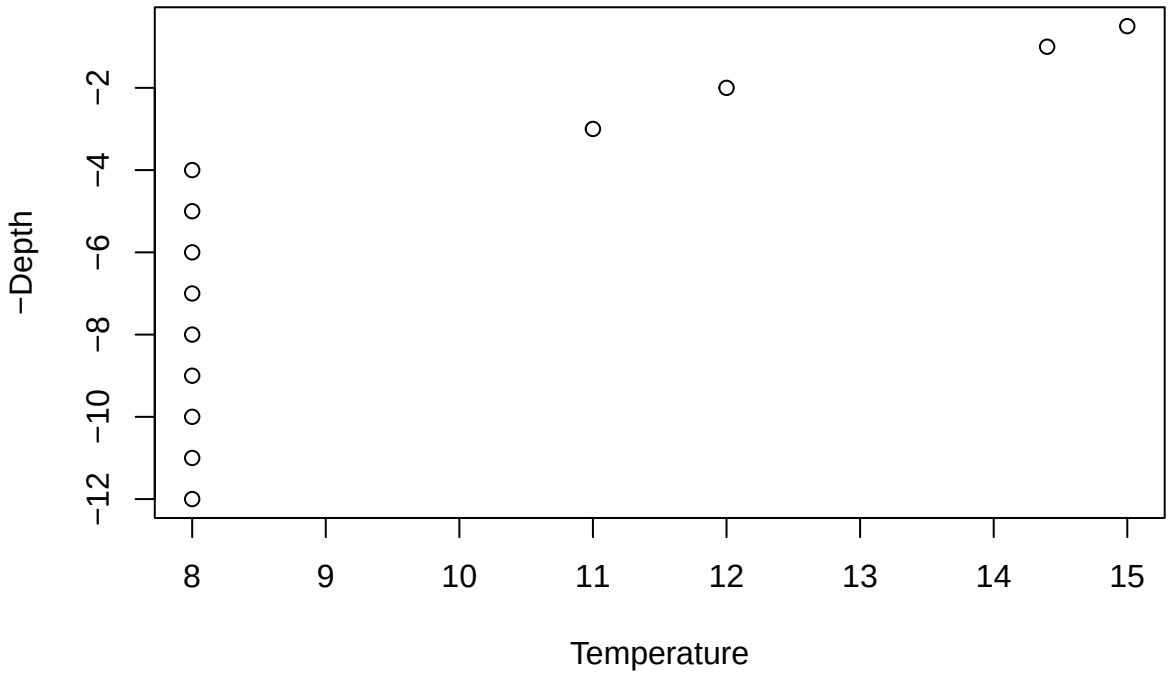
```
## 'data.frame':    13 obs. of  2 variables:
##  $ Depth      : num  0.5 1 2 3 4 5 6 7 8 9 ...
##  $ Temperature: num  15 14.4 12 11 8 8 8 8 8 8 ...
```

Plot the Data

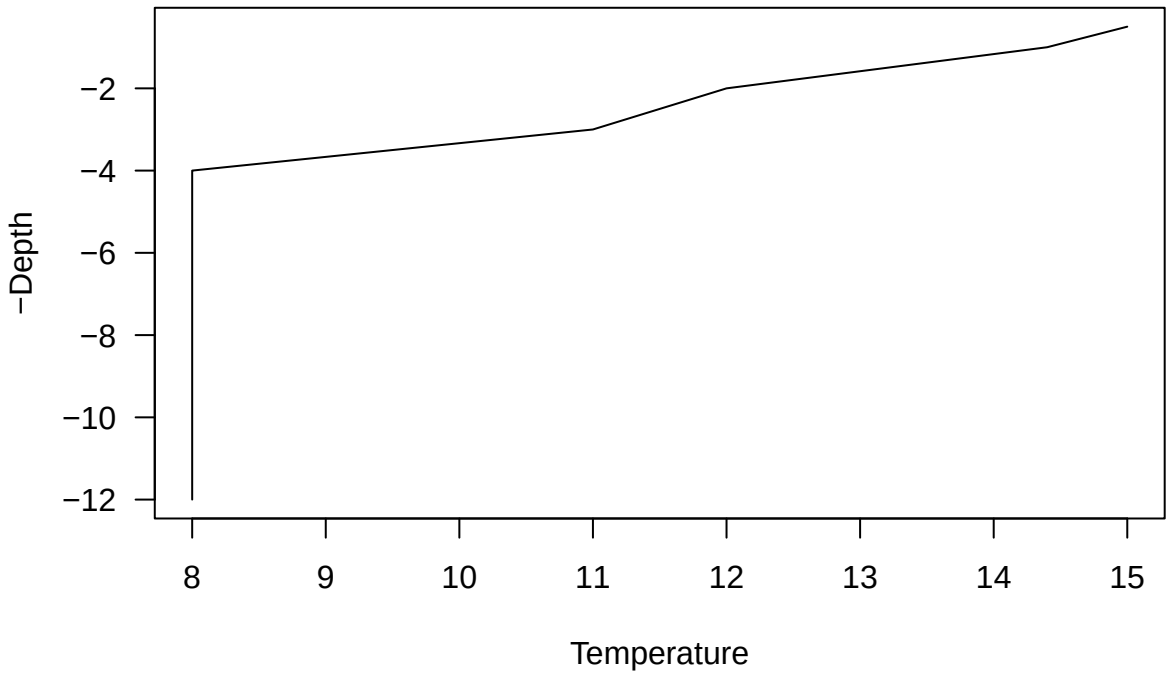
```
plot(Temperature~Depth, data=temp)
```



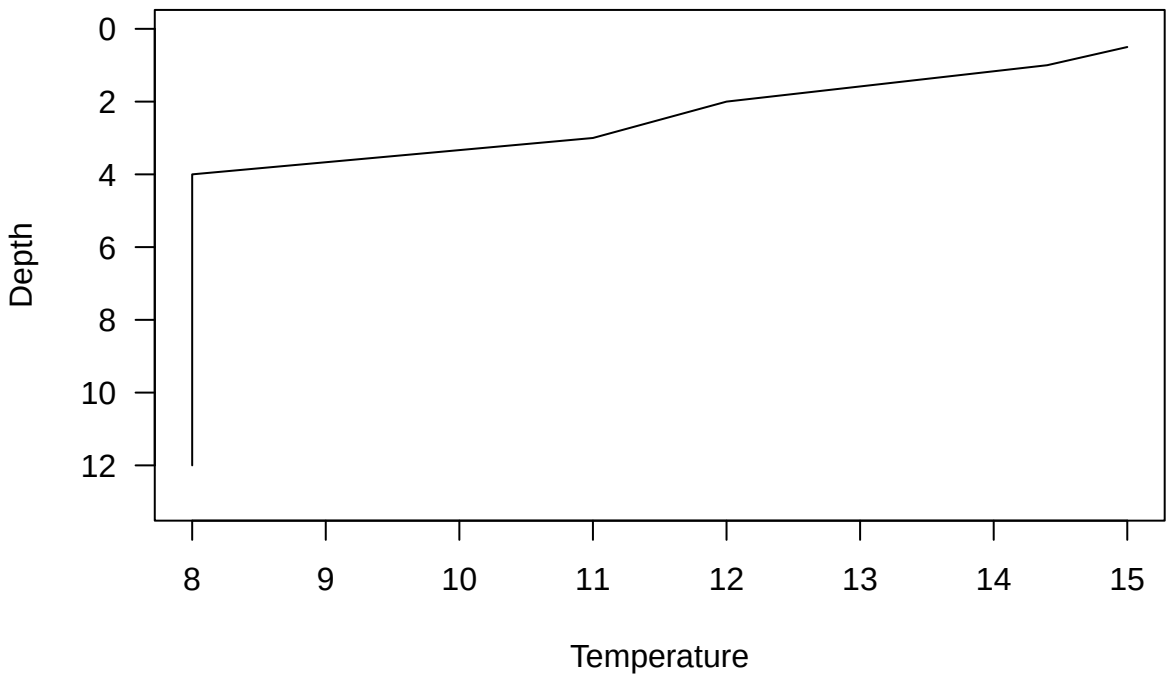

```
plot(-Depth~Temperature, data=temp)
```




```
plot(-Depth~Temperature, data=temp, las=1, ty="l")
```




```
plot(Depth~Temperature, data=temp, las=1, ty="l", ylim=c(13,0), main="pHake Lake Temperature Profile (Ja
```



7. Download Rmd and PDF files

Click on the two files in the "Files" tab in the lower right panel of RStudio and then click on the "More" tab and select "Export". This will download the files to your computer.

Then upload the files to Canvas!