Homework 1

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```
library(tidyverse)
```

Tasks that require an answer are bolded (inside ** in the .qmd file). For any task that includes a question (i.e. it ends with "?"), you should also answer the question in sentence form.

Quarto

0.

Before making any changes to this document, **Render** it to verify you have all the necessary components installed. You can double check the PDF output you get against the `homework_01.pdf` provided on the Assignment page in canvas.

If you run into any difficulties with this first step, ask for help ASAP.

1.

Edit the `author:` line in the top section of this document to replace my name with yours. (1 pt)

It's good practice to check changes as you go. So, once you've made the change, **Render** this document again, and check the document renders without error, and your name has indeed replaced mine in the PDF output.

Reading and Writing R Code

2.

Write code that accomplishes the following steps in this order: (4 pts)

1. Assign a variable called `temp_f` the value `32`
2. Subtract 32 from `temp_f`, then divide it by 1.8. Assign the result to a variable called `temp_c`
3. Call the function `paste()` with `temp_f` as the first argument, `temp_c` as the second argument and the `sep` argument set to `"F converted to C is "`.

```
# Your code goes inside this code chunk
temp_f <- 32
temp_c <- (temp_f - 32) / 1.8
paste(temp_f, temp_c, sep = "F converted to C is ")
```

```
[1] "32F converted to C is 0"
```

If your code is correct, the result of running the chunk should be:

```
[1] "32F converted to C is 0"
```

3.

This week, you've seen how naming the arguments in a call to a function is optional, but can increase the readability of the code. For instance, this line of code doesn't name any of the arguments to `log()`:

```
log(1, 2)
```

Whereas, this code, which does the exact same thing, names all of its arguments explicitly:

```
log(x = 1, base = 2)
```

Re-write each line of code in the chunk below to explicitly name all of the arguments: (4 pts)

```
choose(n = 4, k = 2)
```

```r
mean(x = LakeHuron, trim = 0.1, na.rm = TRUE)

ggplot(
  data = diamonds,
  mapping = aes(x = carat, y = price),
  environment = parent.frame(n = 1)
) +
  geom_point(
    mapping = NULL,
    data = NULL,
    stat = "identity",
    position = "identity",
    na.rm = FALSE,
    show.legend = NA,
    inherit.aes = TRUE
  )
```

(Hint: You might need to look at the help for each function to find out the argument names)

4.

Submit your work (1 pt)

Make sure you Render your completed file once you've completed all the tasks. Double-check the PDF file contains all your solutions, then submit both the Quarto file (`homework_01.qmd`) and the PDF file (`homework_01.pdf`).