WU #1 - Pipes

Math 158 - Jo Hardin

in class: Tuesday 1/18/2022, due: Wednesday 1/19/2022

Name: _____

Names of people you worked with: _____

Consider the following functions:

```
log(x, base = 10)
round(x, digits = 2)
sqrt(x)
```

Your task is to create a new object that nests the following three functions:

$$f(x) = \sqrt{x}$$
$$g(x) = log(x, base = 10)$$
$$h(x) = round(x, digits = 2)$$

$$h(g(f(x))) =?$$

Let `x <- 47`. The task will be completed in two ways:

1. Write the functions out in the way you've always done mathematically, with parentheses (inside out).

2. Write the functions using the pipe (`%>%`) operator so that each function is on a different line (top to bottom).

Solution:

1. with parentheses working your way inside out.

```
x <- 47

round(log(sqrt(x), base = 10), digits = 2)

## [1] 0.84
```

2. with `%>%` working your way from top to bottom

```
x <- 47

x %>%
  sqrt() %>%
  log(base = 10) %>%
  round(digits = 2)

## [1] 0.84
```