lab\_02

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library(tidyverse)

## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──  
## ✔ dplyr 1.1.4 ✔ readr 2.1.4  
## ✔ forcats 1.0.0 ✔ stringr 1.5.0  
## ✔ ggplot2 3.4.4 ✔ tibble 3.2.1  
## ✔ lubridate 1.9.3 ✔ tidyr 1.3.0  
## ✔ purrr 1.0.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()  
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

library(dplyr)

# 1.

Write a function that will find the sum of the natural log, the common log and a log of base 2  
for any given positive number. Use your function to find answers for the first five even integers.  
Show all details and structure of your function. You should get five answers. The first two  
answers are 1.994177 and 3.988354. (Your output should show the other three)

sum\_logs <- function(num) {  
 x = log(num) + log10(num) + log2(num)  
 return(x)  
}  
  
for (i in c(1:5)) {  
 sum\_logs(2\*i)  
 print(sum\_logs(2\*i))  
}

## [1] 1.994177  
## [1] 3.988354  
## [1] 5.154873  
## [1] 5.982532  
## [1] 6.624513

# 2.

Use the if-else structure to print the statement “This is a big number” if the square of a value  
is greater than or equal to 100 and the following statement is printed if the square of the  
number is less than 100, “This is not a big number". Use and show values of assignment and if-  
else structures that will output both statements.

big\_number <- function(num) {  
 if (num^2 >= 100)  
 result <- "This is a big number"  
 else  
 result <- "This is not a big number"  
 print(result)  
}  
  
big\_number(15)

## [1] "This is a big number"

big\_number(5)

## [1] "This is not a big number"