**Eric Schmidt Module 4 Option 2**

**CODE**

# R Hypothesis Tests

install.packages("dplyr")

tScore\_before <- c(40, 62, 74, 22, 64, 65, 49, 49, 49)

tScore\_after <- c(68, 61, 64, 76, 90, 75, 66, 60, 63)

# Create a data frame

my\_data <- data.frame(

group = rep(c("Score Before", "Score After"), each = 9),

scores = c(tScore\_before, tScore\_after)

)

# Print all data

print(my\_data)

#Compute summary statistics by groups

library(dplyr)

group\_by(my\_data, group) %>%

summarise(

count = n(),

mean = mean(scores, na.rm = TRUE),

sd = sd(scores, na.rm = TRUE)

)

# Compute Unpaired Two Sample t-test

res <- t.test(tScore\_before, tScore\_after, var.equal = TRUE)

res

# Compute independent t-test

res <- t.test(scores ~ group, data = my\_data, var.equal = TRUE)

res

#test whether the average score before score is less than the average after score, type this:

t.test(scores ~ group, data = my\_data,

var.equal = TRUE, alternative = "less")

**OUTPUT**





