Lab 8 Submission

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Instructions

Complete the lab tutorial before completing this file. Use the R Markdown version of this file to complete and submit your homework. Items in **bold** require an answer. Make sure you change the author in the header to your own name.

1. **Use `rep()` to generate a vector containing: 0, 0, 0, 0, 0, 1, 1, 1, 2, 2**

```
x_1 <- c(rep(0,5),rep(1,3),rep(2,2))
```

2. **In your own words, describe what happens when negative numbers are used in square bracket subsetting**. *You may refer to the example below.*

```
x <- c("a", "b", "c", "d", "e")
x[c(-2, -4)]
```

```
## [1] "a" "c" "e"
```

The vector of x has deleted the elements inside as the order number we inputted.

3. The last function presented in the lab is as follows:

```
perm_tstat <- function(x, n1){
  n <- length(x)
  grp1_indices <- sample(1:n, size = n1, replace = FALSE)
  grp1_perm <- x[grp1_indices]
  grp2_perm <- x[-grp1_indices]
  t.test(grp1_perm, grp2_perm)$statistic
}
```

Describe how you would edit this function to use the difference in sample means, instead of the t-statistic, as the test statistic in the permutation test.

"statistic" in t.test would be changed into "estimate". Then extract value of "mean of x and y", do a minus between them and saved into a new variable.