

HW 03: ANOVA + Multiple linear regression

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```
library(tidyverse)
library(broom)
library(knitr)
```

```
babies <- read.csv
```

Question 1

$H_0 : u_1 = u_2 = u_3 = u_4 = u_5$ vs $H_a : \text{atleast one } u_i \text{ is not equal to another}$

Question 2

To evaluate these hypothesis, the p-value is calculated using an F distribution with K-1 and n-K degrees of freedom. Therefore: $(5 - 1) = 4$, and $(45 - 5) = 40$ *degrees of freedom*.

Question 3

Since the p-value of 0.0168 in consideration is less than our significance level of $\alpha = 0.05$, we can say that the data provides sufficient evidence that at least one of the teaching methods has/have a mean test score that is different from the other teaching methods. Therefore, we can reject the null hypothesis.

Question 4

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