The data below were designed to test whether learning performance (i.e., number of items correct on a task) differs as a function of temperature condition

50^o	70^o	90^o
0	4	1
1	3	2
3	6	2
1	3	0
0	4	0

- Write precise definitions for a null hypothesis $\mathcal{H}_0$ and alternative hypothesis $\mathcal{H}_1$ for this scenario.
- Calculate the F statistic for an ANOVA comparing the means of the three groups.
- Calculate and interpret the p-value and Bayes factor associated with your obtained F statistic. Which model ($\mathcal{H}_0$ or $\mathcal{H}_1$) receives the most support from the data? Explain.
- Compute a 95% confidence interval for each of the group means.

Calculate the F statistic for an ANOVA comparing the means of the three treatments below.

Treatment 1	Treatment 2	Treatment 3	
$n = 10$	$n = 10$	$n = 10$	$N = 30$
$\overline{X} = 1$	$\overline{X} = 2$	$\overline{X} = 3$	$\sum X = 60$
$SS = 27$	$SS = 16$	$SS = 23$	$\sum X^2 = 206$