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.

The data below represent the efficacy of three pain-relief drugs against a placebo:

Placebo	Drug A	Drug B	Drug C
3	4	6	7
0	3	3	6
2	1	4	5
0	1	3	4
0	1	4	3

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

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

Treatment 1	Treatment 2	Treatment 3	
$n = 10$	$n = 10$	$n = 10$	$N = 30$
$T = 10$	$T = 20$	$T = 30$	$\sum X = 60$
$SS = 27$	$SS = 16$	$SS = 23$	$\sum X^2 = 206$