



Experimental Methods in Computer Science

2020/2021

Exercises on Hypothesis Testing

1) The following table shows the amount of memory used by four algorithms to solve a particular problem. You would like to check whether there are significant differences in the amount of memory used by the four algorithms.

| A | В | С | D |
|------|------|------|------|
| 5.01 | 5.59 | 3.02 | 4.51 |
| 6.23 | 5.13 | 4.79 | 5.73 |
| 5.98 | 5.33 | 3.46 | 5.48 |
| 5.31 | 4.65 | 4.12 | 4.81 |
| 5.13 | 5.52 | 4.51 | 4.63 |
| 5.65 | 4.92 | 4.42 | 5.15 |

Formalise the appropriate hypotheses, test the required assumptions and consider both parametric and non-parametric alternatives. Discuss the results obtained.