

Politecnico di Milano
Scuola di Ingegneria Industriale e dell'Informazione
APPLIED STATISTICS
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Problem n.1

The files `discomaniac.txt` and `lipsticks.txt` contain the prices (in €) and the conditions of sales (a real number from 0 to 12) of the same 20 LPs sold from two stores.

- a) Perform a statistical test of level 95% to verify if the mean prices and conditions of the two stores differ.
- b) Which are the assumptions of the previous test? Are they met?
- c) Provide the plot of the confidence region at level 95% for the differences of the mean of prices and the conditions between the two stores.
- d) Provide four Bonferroni simultaneous confidence intervals of global level 95% for the means and the variances of the differences in prices and conditions. Interpret the results of the test at point (a) through the intervals.

Upload your results here:

<https://forms.office.com/Pages/ResponsePage.aspx?id=K3EXCvNtXUKAjjCd8ope6-9ASOGWf2lHjvGX24HiqFVURU4wOTVRMThW0VJVS0FJOEF0U0JR0TA4Qi4u>