

# ASM: FIRST HOMEWORK

M. Pérez-Casany and A. Duarte-López

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Exercise 1: Let  $X$  be a quantitative r.v. and let  $x_1, x_2, \dots, x_n$  be a sample from it. Study how the sample mean and the empirical variance change by

- a) adding a constant  $a$  to all the values,
- b) multiplying by a constant  $a$  all the values.

Exercise 2: Perform the analysis of the CPU time data set that appears at the end of the slides Mirisession2.pdf. Follow the steps of the data analysis established as a guidelines.

Exercise 3: Analyze the FIFAdataset modeling the Acceleration as a function of : agility, sprint.speed, reactions and balance. Follow the steps of the data analysis established as a guidelines.

Important: The homework has to be upload to the Racó no later than September 25th at 12.00 pm. We recomend to work in pairs.