**Second Continuous Evaluation (December 2019), Statistics-I, group ARA**

We have the base (<https://www.uv.es/mperea/d19th.sav>) that contains data of 50 people, with the RT in a letter identification task, the RT in an object identification task, age, verbal IQ, socioeconomic status, level of Valencian, whether they have (or not) an iPhone, and whether they have (or not) a vehicle.

1. We want to know whether there’s a relationship between Socioeconomic status and Level of Valencian. What is the value of the appropriate index of correlation and what does it mean? (Copy/paste from SPSS when necessary)

2. We want to predict the RT in the object identification task as a function of the RT in the letter identification task, age, and verbal\_IQ. The questions are: 1) what proportion of variance in object identification task can be explained by the regression equation with these three predictors? and 2) Which would be the predictors in the equation in case we opt for the “stepwise” procedure? (Copy/paste from SPSS)

3. We have the following probability density function, f(x)=d for 1<X<3 and f(x)=0 otherwise. The questions are the following: 1) What is the value of f(2) and justify your answer; and 2) What is the value of F(2) and justify your answer.

4. We want to know whether a new dollar coin is well-balanced. To check whether this hypothesis is true, we toss a coin 100 times, and we get 55 heads. Is this result compatible with out hypothesis? Justify your answer. You may want to use the rule of percentile 95.

