DATA130004: Homework 7

Due in class on December 14, 2017

1. Given i.i.d. random samples $X_1, \ldots, X_n$ with mean μ and variance σ^2, show that the sample variance
$$s^2 = \frac{1}{n-1}\sum_{i=1}^{n}(X_i - \bar{X})^2$$
is an unbiased estimator of σ^2.

2. Exercises 7.6, 7.7.