

(4th Assignment is due on April 17. The paper work must be submitted on the class.)

(i) Assume that the observed data  $(X_1, X_2, \dots, X_n)$  generated from  $N(0, 1)$ . Please compare MISE of parametric density estimation and non-parametric density estimation (kernel method) under various sample size  $n$ .

(ii) Based on data faithful, please estimate the univariate density function and the bivariate density function.