Homework 1

Total points : 15

1. Propose an estimate of $e := \lim_{n\to\infty} \left(1 + \frac{1}{n}\right)^n$ using results of Probability Theory and study performance of your proposed methodology.

Points : 5

2. Propose an estimate of π using results of Probability Theory and study performance of your proposed methodology.

Points : 5

3. Generate 100 observations from normal distribution with mean = 0 and variance = 1. Test whether the generated observations are really "random" or not.

Points : 5

Deadline: Deadline of submission is January 26, 2025.

Remark: You can use any package or any programming language to carry out the study.