University of Toronto

Department of Computer & Mathematical Sciences

STAB57: an Introduction to Statistics

Assignment Nr n

taught by Louis de Thanhoffer de Volcsey

-email me

-website

-textbook

This week's list of problems is based on the material from:
Chapters 1-4
You are expected to work on this list of problems prior to the upcoming tutorial.
Problems have the following tags:
: difficult, : Book exercise, : extra exercise

Terminology and Concepts to learn:

- probability space, density function, cdf, random variables, distributions of RV's independence, mean, variance,
- the Bernouilli, binomial, Poisson and geometric discrete distributions,
- the exponential, Erlang, Gamma and normal continuous distributions

Problem 1

1 Practice your skills on discrete distributions by doing problems 2.3.5,6,7,8,10,12

Problem 2

1 Practice your skills on continuous distributions by doing problems 2.3.18, 3.2.1,3.2.2, 3.2.7, 3.2.8, 3.2.16

Problem 3

1 Find two random variables such that $\mathrm{E}[X \cdot Y] \neq \mathrm{E}[X] \cdot \mathrm{E}[Y]$