CS 519: Probability and Linear Algebra
Assignment 1
Due date: 17th August, Wednesday (During Class, 12pm)

1. Set of rational numbers Q : countable.

2. Prove that:

a. If $B \subset A$ then $P(B) \leqslant P(A)$ and P(A-B) = P(A) – P(B)
b. If A and B are independent events (i.e., P($A \cap B$) = P(A) . P(B))
then show that P($A^c \cap B$) = P(A^c) . P(B)

3. **HOS**: Hossein Pishro-Nik. ***Introduction to Probability, Statistics, and Random Processes***. 2014.
Companion Website
End of chapter problems
Chapter 1 / section 1.5
Problem nos. 10, 17, 25, 33, 36, 37

Chapter 2
Problem nos. 13, 14, 15

NOTE:
Any question related to assignment must be posted on Piazza. Direct mail to instructor's email-id will not be entertained.