

Bootcamp : Statistics

Baptiste Rouger

September 21, 2016

Contents

I	Probability	2
----------	--------------------	----------

Part I

Probability

Probability enable the treatement of random phenomena (an event of which the outcome is not know in advance).

Probability space : (Ω, F, P)

- Ω is the set of all the possible outcomes of an experiment.
- F is the family of events

How many three-letter initials can people (whose name is written using Latin alphabet) have ?

If a password consists of a 3 digits number followed by a five character string of capital and small English letter (except the last the last letter which has to be small), how many possible passwords are there ?

A palindrome is a string that reads the same forwards and backwards. How many 6 digits numbers are palindromes ? How many 5 digits numbers ?

You have a 52-card deck. In how many ways can you deal 6 cards to each of 4 players ? 13 cards to each of 4 players ?

Ten people are in the room and everyone shakes everyone else's hand exactly once. How many handshakes were there ?