

THE GEOMETRY OF CHANCE: LOTTO NUMBERS FOLLOW A PREDICTED PATTERN

Renato GIANELLA¹

▪ *ABSTRACT: This article is based on the text “The Ludic in Game Theory” (Gianella, 2003). With mathematically formal treatment introduced in the preliminary definitions and the proof of Theorem 1, the concepts addressed result in obtaining the linear Diophantine equations which on Geometry of Chance is used to formalize the sample spaces of probabilistic events, simple combinations of n elements taken p at a time, commonly denoted by $C_{n,p}$, and combinations with repetitions of n elements taken p at a time, denoted by $Cre_{n,p}$. Introducing the idea of the frequentist view, proposed by Jacques Bernoulli, it is shown that, within the universally accepted mathematical probabilistic view of the relationship between all favorable outcomes and all possible outcomes, the result of each event follows a given pattern. The study of the set of organized and ordered patterns is introduced; accordingly, when compared to one another, the results occur with different frequencies. As predicted by the Law of Large Numbers, these patterns, if geometrically depicted, provide a simple tool with which to inspect sample spaces. Thus, the available results from lottery experiments, gathered from countries where such events take place, make up the ideal laboratory: they provide subsidies to help understand the probability of each pattern pertaining to the pattern set. Additionally, analyzing the frequencies of previous samplings provides tools for plotting strategies to forecast what might happen in the future.*

▪ *KEYWORDS: Gambling; betting; pattern; template; probability; games; probability; pattern.*

¹Rua Dr. Mario Ferraz, 60 – 7 andar- Apto 71 – Bairro Jardim Europa, Cep:01453-010, São Paulo – SP - Brazil. E - mal: rgianella@lotorainbow.com.br