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BRIEF NOTES OF PROBABILITY

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ABSTRACT

Probability is one of the fastest growing and important subject in statistical mathematics current paper deals with the basic and brief introduction to probabilitythrough random experiment and trials including few example

INTRODUCTION

Concept of probability is from time unknown in human civilization .Laplace pascaletc gave then mathematical interpretation which is growing very fast

The theory of probability provides mathematical model for “real world phenomena” involving games and chance such as tossing of a coin or a dice etc

Random experiment

Probability has additive property and frequency interpretation To deal with these properties of probability situations we need a mathematical description or model any such as “random experiment”

NOTATION:

(1) Tossing of a coin or dice

(2) Taking a card from a pack of 52 cards

Trial

Each performance in a random experiment is called a trial all the trals are conducted under the same set of conditions

Example:-1

A bag contains (n+1) coin .it is known that one of these coin show heads on both the sides where as the other coin are fair once coin selected random and tossed if the probability that toss result in heads is 7/12 then the value of n is

Let E_1 be the event a coin with two heads is selected

E_2 be the event a fair coin is selected A be the event the toss result in heads

Then

- $P(E_1) = 1/n+1$
- $P(E_2) = n/n+1$
- $P(A/E_1) = 1$
- $P(A/E_2) = 1$
  - $P(A) = P(E_1)\ P(A/E_1) + P(E_2)\ P(A/E_2)$
    - $7/12 = (1/n+1)\ (1) + (n/n+1)\ (1/2)$
    - $7/12 = (1/n+1) + [n/2(n+1)]$

      $\{P(A) = 7/12\}$
    - $7 = 12 + 6n /n+1$
    - $7n-6n = 12-7$

$$\boxed{n = 5}$$

CONCLUSION

The theory of probability contrives mathematical portrate for real world phenomena involving game and chances

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