Why

1

Definition

Two events are *independent* if the probability of their intersection is the product of their respective probabilities.

Definition

Let $\mathbf{P}$ be an event probability function with set of outcomes A. Then the events B and C are independent if

$$\mathbf{P}(B \cap C) = \mathbf{P}(B)\mathbf{P}(C).$$

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[1]To appear in future editions.

Event Independence

Conditional Event Probability

Event Probabilities

Probability Distributions

Intervals

Real Line

Real Order

Real Summation

Real Numbers

Integral Line

Rational Numbers

Integer Arithmetic

Natural Additive Identity

Natural Multiplicative Identity

Arithmetic

Identity Elements

Natural Summation

Integer Products

Natural Powers

Family Operations

Integer Sums

Natural Products

Algebras

Set Operations

Integer Numbers

Natural Sums

Operations

Families

Equivalence Relations

Recursion Theorem

Functions

Relations

Peano Axioms

Cartesian Products

Natural Induction

Uncertain Outcomes

Ordered Pairs

Set Powers

Natural Numbers

Partitions

Unordered Triples

Intersection of Empty Set

Successor Sets

Set Intersections

Pair Unions

Set Symmetric Differences

Pair Intersections

Set Unions

Set Complements

Unordered Pairs

Empty Set

Set Differences

Geometry

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects