Why

We define a probability density which is a constant function over some interval of real numbers.

What

A *uniform density* on the inveral $[a, b]$ is the density which has constant value $b - a$.

Uniform Densities

Probability Densities

Real Integrals

Nonnegative Integrals

Simple Integrals

Measurable Functions

Measures

Extended Real Numbers

Probability Distributions

Real Limits

Intervals

Probability Outcomes

Real Sequences

Real Summation

Real Order

Probability

Real Numbers

Common Sense

Rational Numbers

Integer Arithmetic

Natural Summation

Natural Multiplicative Identity

Natural Additive Identity

Subset Algebras

Sequences

Families

Algebra

Identity Elements

Arithmetic

Set Operations

Cardinality

Natural Exponents

Integer Products

Operations

Natural Products

Integer Sums

Functions

Natural Sums

Integer Numbers

Equivalence Relations

Recursion Theorem

Simple Functions

Relations

Peano Axioms

Subset Systems

Cartesian Products

Characteristic Functions

Natural Induction

Ordered Pairs

Partitions

Set Powers

Natural Numbers

Unordered Triples

Intersection of Empty Set

Successor Sets

Set Symmetric Differences

Set Intersections

Pair Unions

Pair Intersections

Set Complements

Set Unions

Empty Set

Unordered Pairs

Set Differences

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Identities

Sets

Names

Letters

Objects