Prime specification

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https://github.com/bayship-org/mathematics

1 Notations

Definition 1.1.
”And” is also written as ” $_{and}\wedge$ ”.
”Or” is also written as ” $_{or}\vee$ ”.

$(x \ {}_{and}\wedge\ y)$ is not commutative because y possibly depends on x.
$(x \ {}_{or}\vee\ y)$ is not commutative because y possibly depends on $\neg x$.

2 Introduction

All definition D of variables is said a **variable context**.
More precisely, D must be a sequence of sub definitions of which each defines exactly one variable. And all terms of D must be pairwise in order of dependencies, i.e., the dependent appears later.
All variable context V is said **independent** if all term is only dependent of terms in V.
All independent variable context V is also said an **antecedent context**.
All variable context V is said a **consequent context** of an antecedent context A if ((A followed by C) is independent as a new variable context).

In the rest of this section, take $\forall(A, C)$ as an antecedent context A and a consequent context C of A.

Take $\forall x$ as a variable of A. Then x is said **specified** if x represents exactly one entity.
For example, $x := 1$ then x is said specified; $\forall x :\in \mathbb{N}$ then x is not specified; let x be a point then x is not specified.

Take $\forall x$ as a variable of C. Then x is said **specified relatively to** A if (
x represents exactly one entity if you assume that all variables of A are specified
).
For example, let A define $\forall n :\in \mathbb{N}$ and C define $x := n + 1$. Then x is specified relatively to A because if n had been specified in A then x represented exactly one natural number.

Take $\forall(p, x)$ as (a propositional function p which takes exactly one argument) and (a variable x of C such that x is specified relatively to A).
Then x is said p-**prime** if (
there exists $\exists C_x$ as a consequent context of A such that
$(*1 \ {}_{and}\wedge \ *2 \ {}_{and}\wedge \ *3)$
).

1. x is a variable of C_x.

2. Take $\forall y$ such that $(*\mathrm{s}1 \ {}_{and}\wedge \ *\mathrm{s}2 \ {}_{and}\wedge \ *\mathrm{s}3)$.

s1. y is a variable of C_x.

s2. y is specified relatively to A

s3. $p(y) =$true.

3. Then $x = y$.

For example, let A define that $\forall n :\in \mathbb{N}$ and let p state that x is a range on R.
Then (C can define x as p-prime)
as $x := [n, n + 1] :\subset R$.
Notice that $n + 1$ is specified before x in C. Though $p(n + 1) =$false.

3 Prerequisite definitions

GitHub:Minor_of_memBer.pdf

In the article above, in its first two pages, all prerequisite definitions for this article are given. Especially, the second page of the above article defines that two memBers (x, y) are said (x is a **minor** of y).

4 Conjecture

Conjecture 4.1 (Conjecture)**.**
Take $\forall(n, X, T, M)$ as the Euclidean space (X, T, M) of n-dimension where X is the space, T is the topology and M is the metric table.
As a remark, for the set of all orthogonal coordinate systems for the space, no special member is defined.
Let $A := (n, X, T, M)$.
Take all finitely countable set of consequent contexts of A.
Denote it as $C^A_{i \in N \subset \mathbb{N}}$ where the index set N is a subset of **N** and the indexing is meant to be bijective.

If $C^A_{i \in N}$ satisfies ($*1 \ {}_{and}\wedge$ ..... ${}_{and}\wedge$ $*3$)
then ($\bigcap_{i \in N} x_i$) is a minor of T.

1. Let p(x) be a propositional function as (
space(x) $\subset X \ {}_{and}\wedge$ x is a set
).

2. Take $\forall i :\in N$.

3. There exists x_i such that (
C^A_i defines x_i as p-prime
).

5 Examples

This section just gives examples of substituting actual values into variables of the main conjecture.

Definition 5.1 (Unknot)**.**
For the main conjecture,this example substitutes values
into (n, N, C_1) as $n := 3$; $N := \{1\}$; $C_1 := (*1 \ {}_{and}\wedge$ ..... ${}_{and}\wedge$ $*6)$.

1. Let $k1$ be an unknot.

2. Let $K := \{k \mid ((T, k), (T, k1))$ are isomorphic $\}$.

3. Take $\forall k :\in C$.

4. $f1(k) := \{d \mid d$ is a proper knot diagram of $k\}$.

5. $f2(k) := \{r \mid$
$\exists d :\in f1(k) \quad {}_{and}\wedge$
r is the number of crossings on d
$\}$.

6. $f(k) :=$ "the maximum number of $f2(k)$.

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