Why

We want sums to follow those of natural numbers.[1]

Definition

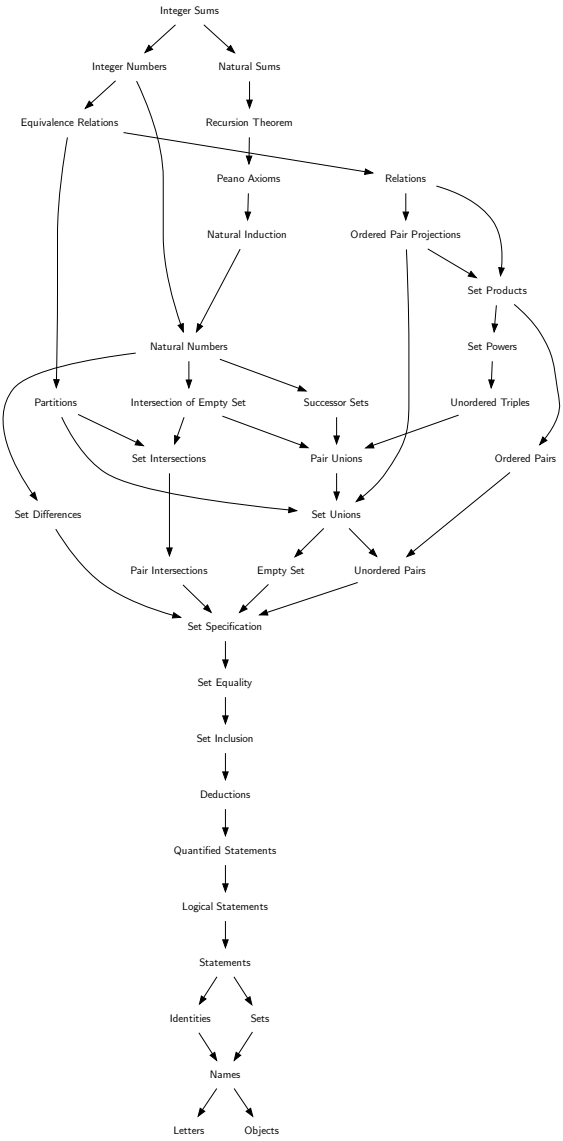
Consider $[(a,b)], [(c,d)] \in \mathbf{Z}$. We define the *integer sum* of $[(a,b)]$ with $[(c,d)]$ as $[(a+c, b+d)]$.[2]

Notation

We denote the sum of $[(a,b)]$ and $[(c,d)]$ by $[(a,b)] + [(b,c)]$ So if $x, y \in \mathbf{Z}$ then the sum of x and y is $x + y$.

[1] Future editions will modify this.

[2] One needs to show that this is well-defined. The account will appear in future editions.


Integer Sums
Integer Numbers
Natural Sums
Equivalence Relations
Recursion Theorem
Peano Axioms
Relations
Natural Induction
Ordered Pair Projections
Set Products
Natural Numbers
Set Powers
Partitions
Intersection of Empty Set
Successor Sets
Unordered Triples
Set Intersections
Pair Unions
Ordered Pairs
Set Differences
Set Unions
Pair Intersections
Empty Set
Unordered Pairs
Set Specification
Set Equality
Set Inclusion
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects