Why

We partition a real interval into interval pieces.

Definition

An *interval partition* is a finite partition of a closed real interval.

An interval partition is *regular* if all pieces except the largest are closed on the left and open on the right and the largest is closed.

Any regular interval partition with $n-1$ elements can be represented by $n+1$ real numbers: the endpoints of each interval. We call these the *cut points* of the interval partition.

Notation

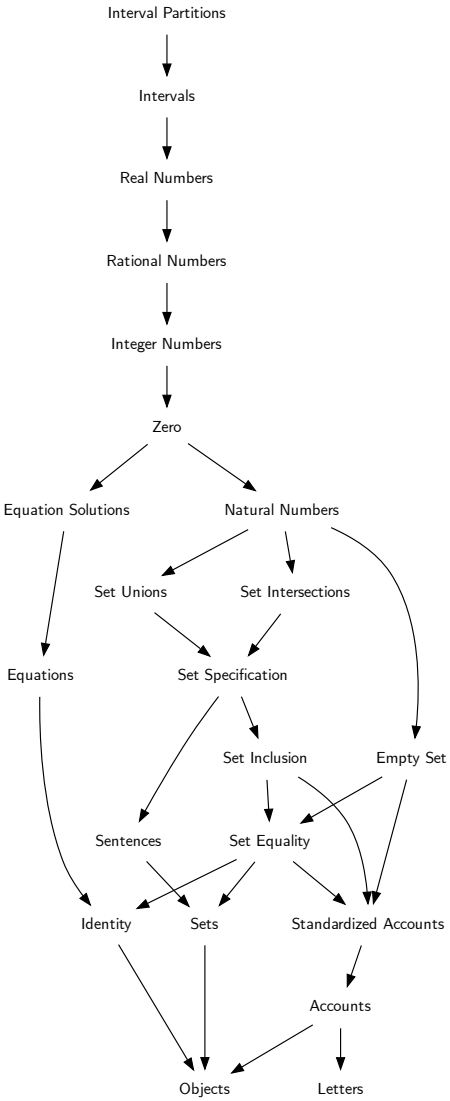
Let R denote the set of real numbers. Let $[a, b]$ a closed interval in R with endpoints $a, b \in R$.

Consider a regular partition. of $[a, b]$ with $n-1$ pieces. We can identify its cut points:

$$a = a_1 < a_2 < \ldots a_{n-1} < a_n = b.$$

The pieces of the partition are:

$$[a_1, a_2), [a_2, a_3), \ldots, [a_{n-2}, a_{n-1})[a_{n-1}, a_n].$$


Interval Partitions
Intervals
Real Numbers
Rational Numbers
Integer Numbers
Zero
Equation Solutions
Natural Numbers
Set Unions
Set Intersections
Equations
Set Specification
Set Inclusion
Empty Set
Sentences
Set Equality
Identity
Sets
Standardized Accounts
Accounts
Objects
Letters