Why

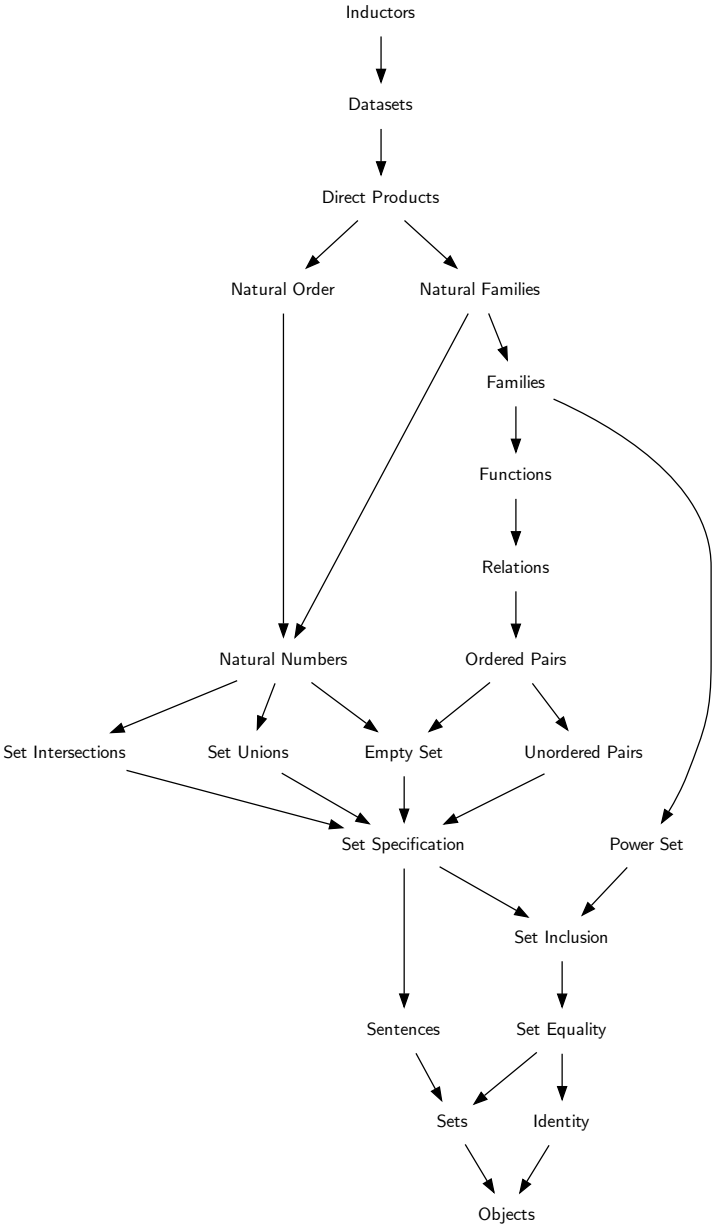
We want to talk about learning associations between perceptions in time or space.

Definition

An *inductor* is a function mapping a dataset of records in a cartesian product of two sets to a function between the two sets. We call the first set the *precepts* and the second set the *postcepts*. We call a function from the precepts to the postcepts a *predictor*. We call the result of a precept under a predictor a *prediction*. An inductor maps datasets to predictors.

Notation

We introduce no new notation, but rather express the new concepts in the old notation. Let A and B be non-empty sets. Let D be a dataset in $A \times B$. Let $g : A \to B$, a predictor, which makes prediction $g(a)$ on precept $a \in A$. Let $f : (A \times B)^n \to (A \to B)$, an inductor. Then $f(D)$ is the predictor which the inductor associates with dataset D.


Inductors
Datasets
Direct Products
Natural Order
Natural Families
Families
Functions
Relations
Natural Numbers
Ordered Pairs
Set Intersections
Set Unions
Empty Set
Unordered Pairs
Set Specification
Power Set
Set Inclusion
Sentences
Set Equality
Sets
Identity
Objects