

## **0.1 Signatures**

### **0.1.1 Structures**

A logical structure consists of:

- Domain
- Interpretation
- Signature

### **0.1.2 Domain**

The domain is the set of variables in the structure.

We include an infinite number of variables.

### **0.1.3 Interpretation**

The interpretation assigns values to propositional and predicate variables.

### **0.1.4 Signature**

A logical signature describes the language of the logic which is used to construct statements. This includes:

- Functions
- Relations
- Operators

The language of a signature is all possible sentences, or formulae which can be constructed from this signature.

We include an infinite number of functions, relations and all operators.