

1 Introduction

Definition. Logical sentences are made up of the 4 mathematical statements, and mixture of them using the “joining words”:

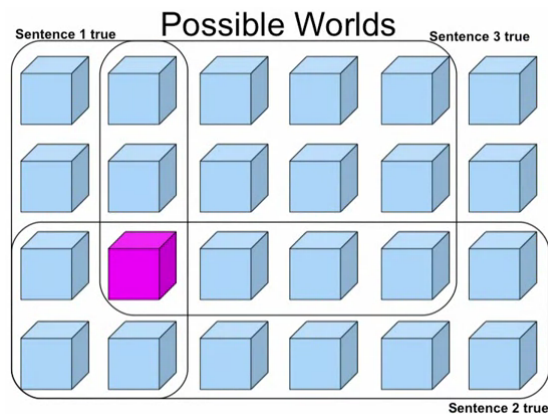
1. Object a has property P .

(a) Method of representation:

	Abby	Bess	Cody	Dana
Abby			✓	
Bess			✓	
Cody	✓	✓		✓
Dana			✓	

2. Every object of type T has property P .
3. There exists an object having a property P .

(a) Method of deduction (Checking all possible worlds):



- (b) This method is often impractical, since there is often (infinitely) many impractical worlds.
4. If A , then B .
 - (a) Consider relations (**R**eflexive, **S**ymmetric, **T**ransitive).
 - (b) E.g. let $A \blacktriangleleft B$ denote B is better than A . It is clear that $B \blacktriangleleft C \Rightarrow A \blacktriangleleft C$ is