

Risoluzione: Esempio

Modus ponens e risoluzione

- ?- assert(a :- b). %b -> a oppure not b or a {¬b, a}

- true.

- ?- assert(b). % {b}

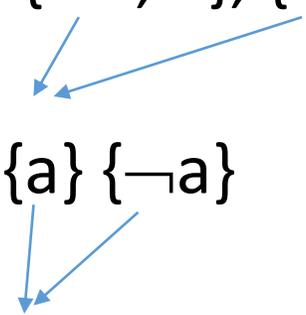
- true.

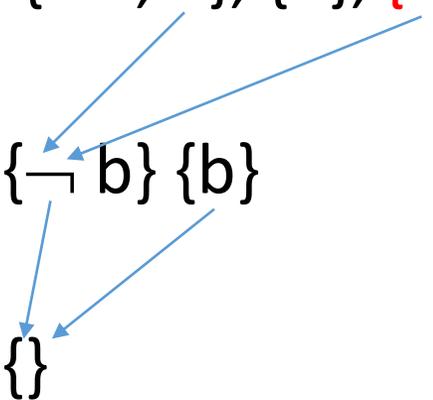
- ?- a.

- true.

%Is it a “one step” resolution?

- .. NO

- It's not "one step" resolution
 - In fact:
 - Whenever
 - $KB = \{\neg b, a\}, \{b\}$
 - $Q: a$
 - THEN $KB' = KB \cup \{\neg a\}$ should be proofed as inconsistent
 - $KB': \{\neg b, a\}, \{b\}, \{\neg a\}$
 - $R1: \{a\} \{\neg a\}$
 - $R2: \{\}$
- 
- The diagram consists of blue arrows indicating the flow of logical derivation. One arrow points from the set
- $\{\neg a\}$
- in the
- KB'
- list to the set
- $\{\neg a\}$
- in the
- $R1$
- list. Another arrow points from the set
- $\{a\}$
- in the
- $R1$
- list to the empty set
- $\{\}$
- in the
- $R2$
- list.

- It's not the ONLY WAY of do it:
 - In fact in the same situation
 - $KB = \{\neg b, a\}, \{b\}$
 - $Q: a$
 - THEN $KB' = KB \cup \{\neg a\}$ should be still proofed as inconsistent,
 - ... but different resolvent can be applied at each step, e.g.
 - $KB': \{\neg b, a\}, \{b\}, \{\neg a\}$
 - R1: $\{\neg b\} \{b\}$
 - R2: $\{\}$
- 

From CPROP to FOL

- What about
- $a(X) :- b(X)$?
- AND
- $b(c)$?
 - Is $a(X)$ still true?
 - Is $a(c)$ true?
- What is the role of X and c
- What is to be added to resolution for it being still applicable?