# 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 = {¬b, a}, {b}
- Q: a
- THEN KB’ = KB ∪ {¬a} should be proofed as inconsistent
- KB’: {¬b, a}, {b}, {¬a}
- R1: {a} {¬a}
- R2: {}

- It’s not the ONLY WAY of do it:
- In fact in the same situation
- KB = {¬b, a}, {b}
- Q: a
- THEN KB’ = KB ∪ *{¬a}* should be still proofed as inconsistent,
- … but different resolvent can be applied at eacj step, e.g.
- KB’: {¬b, a}, {b}, *{¬a}*
- R1: {¬ 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?