**UNALExamplesPRP**

Ax =

q => r

r => (p & q)

p => (q | r)

C = p <=> q

**UNALExamplesFOF**

fof(padres\_guapo,axiom,

! [C] :

( guapo(C)

=> ? [P] : ( padres(P,C) & guapo(P) ) ) ).

fof(mayor\_guapo,axiom,

! [S] : ( guapo(mayor(S)) => guapo(S) ) ).

fof(padres\_geoff,axiom,

( padres(bob,geoff)

& padres(maggie,geoff)

& ! [P] :

( padres(P,geoff)

=> ( P = bob

| P = maggie ) )

& bob != maggie ) ).

fof(mayor\_geoff,axiom,

( mayor(geoff) = jill

& geoff != jill ) ).

fof(jill\_guapo\_bob\_no,axiom,

( guapo(jill)

& ~ guapo(bob) ) ).

fof(maggie\_guapo,conjecture,

guapo(maggie) ).

**UNALExamplesTFF**

tff(teacher\_type,type,teacher: $tType).

tff(student\_type,type,student: $tType).

tff(geoff\_decl,type,geoff: teacher).

tff(joe\_decl,type,joe: student).

tff(teacher\_of\_decl,type,teacher\_of: student > teacher).

tff(failed\_decl,type,failed: student > $o).

tff(stupid\_decl,type,stupid: student > $o).

tff(geoff\_teaches\_joe,axiom,

teacher\_of(joe) = geoff).

tff(about\_joe,axiom,

( ~stupid(joe) & failed(joe) ) ).

tff(failed\_reason,axiom,

! [S: student] :

( failed (S)

=> ( stupid(S)

| ? [A: student] :

( A != S

& teacher\_of(A) = teacher\_of(S)

& failed(A) ) ) ).

tff(another\_student,conjecture,

? [S: student] :

( S != joe

& teacher\_of(S) = geoff

& failed(S) ) ).

**UNALExamplesNTF**

tff(semantics,logic,

$alethic\_modal ==

[ $domains == $constant,

$designation == $rigid,

$terms == $local,

$modalities == $modal\_system\_M ] ).

tff(student\_type,type,student: $tType).

tff(exam\_type,type,exam: $tType).

tff(donald\_decl,type,donald: student).

tff(alex\_decl,type,alex: student).

tff(csc101\_decl,type,csc101: exam).

tff(unfair\_decl,type,unfair: (student \* exam) > $o).

tff(cheating\_decl,type,cheating: (student \* exam) > $o).

tff(unfair\_exam,axiom,

! [S: student] :

{$possible} @

( ? [E:exam] : unfair(S,E) ) ).

tff(student\_cheating,axiom,

! [E: exam] :

( ? [S1: student] : cheating(S1,E)

=> ! [S2: student] : {$necessary} @ ( unfair(S2,E) ) ) ).

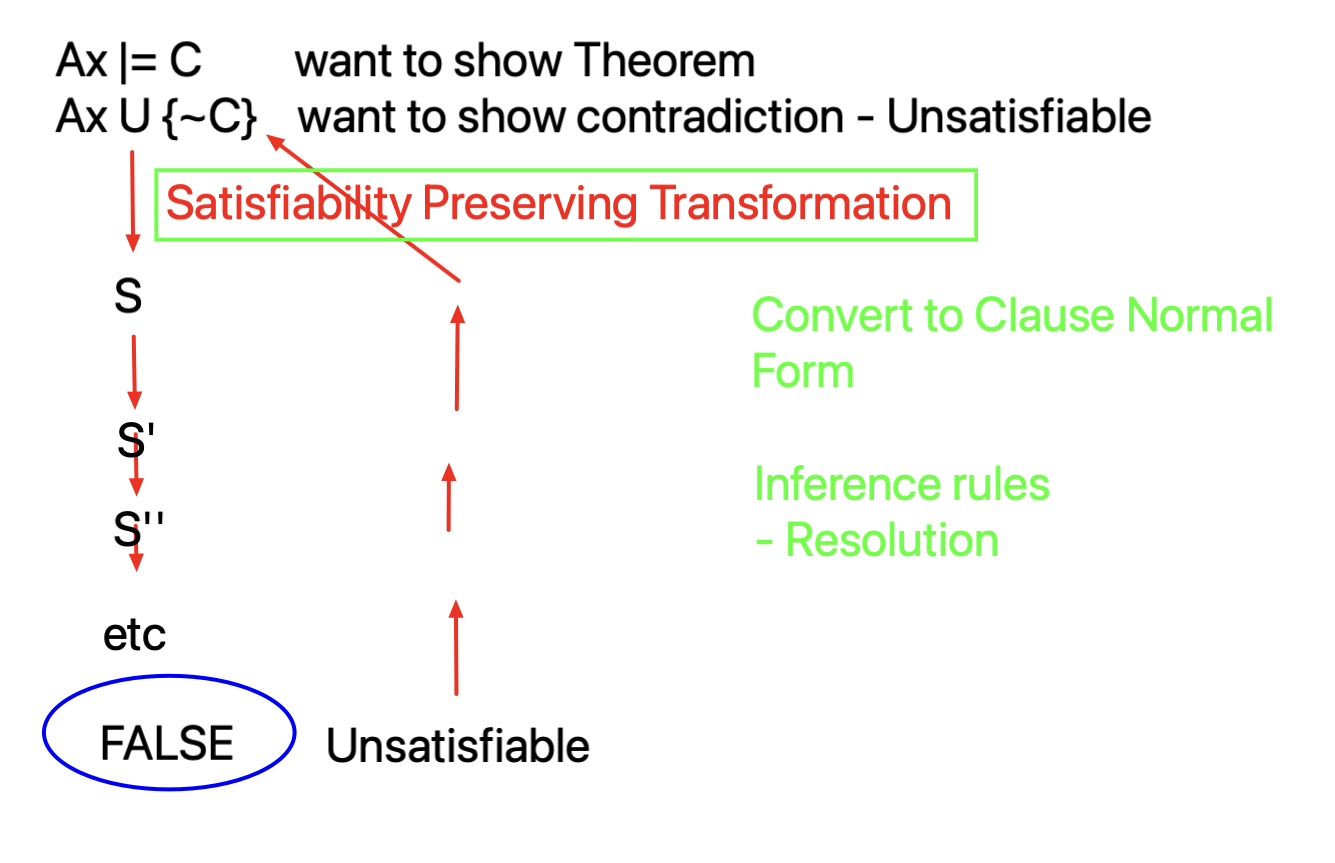
tff(donald\_cheating,axiom,

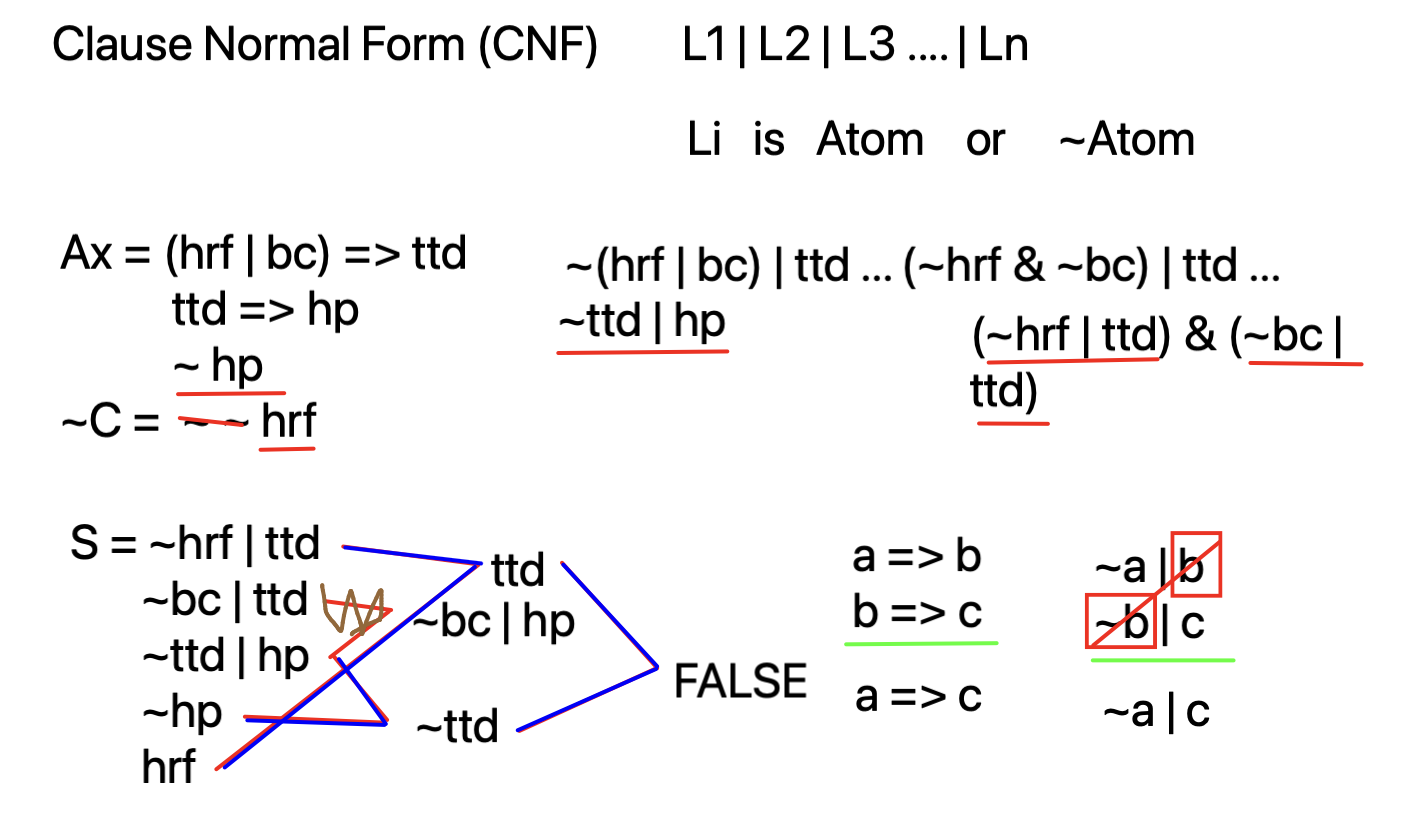
cheating(donald,csc101) ).

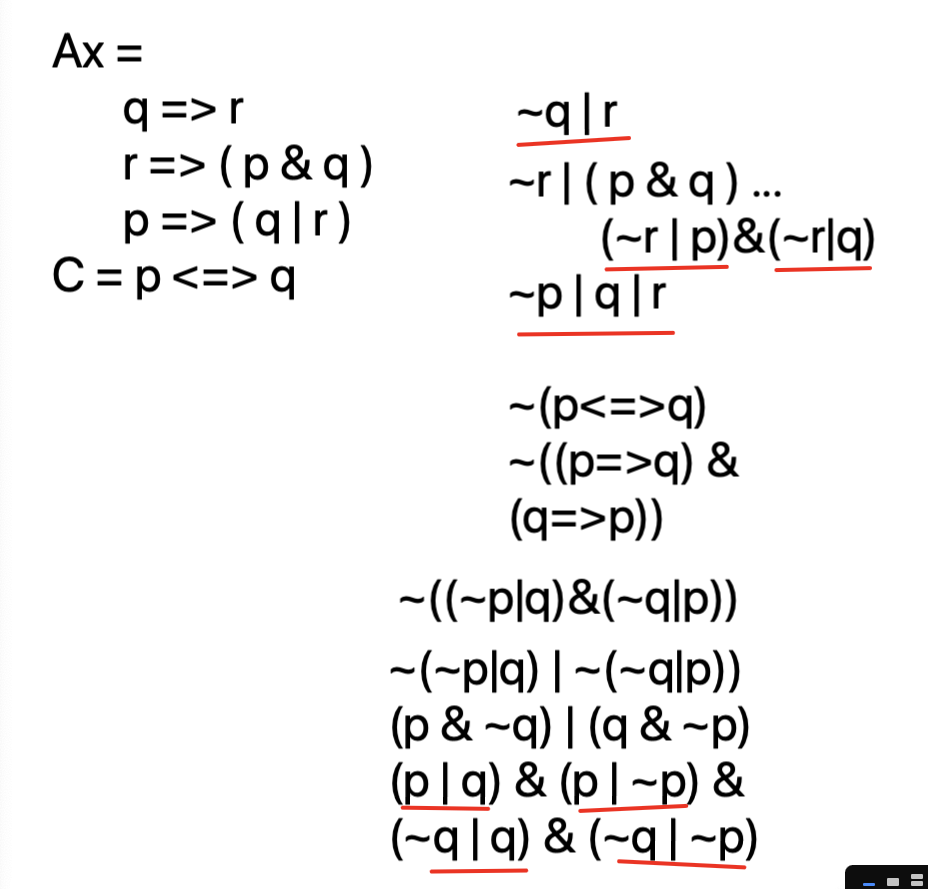
tff(unfair\_to\_alex,conjecture,

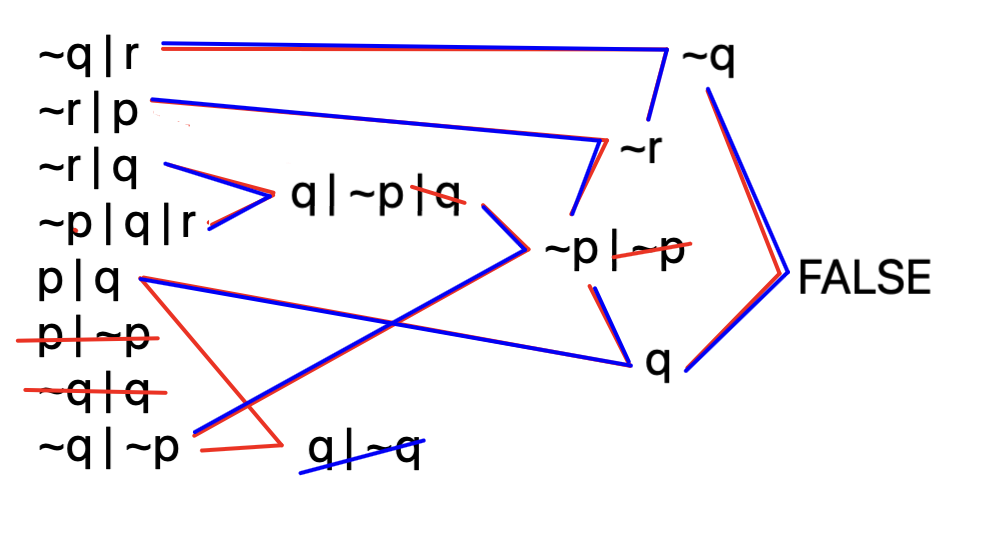
{$possible} @

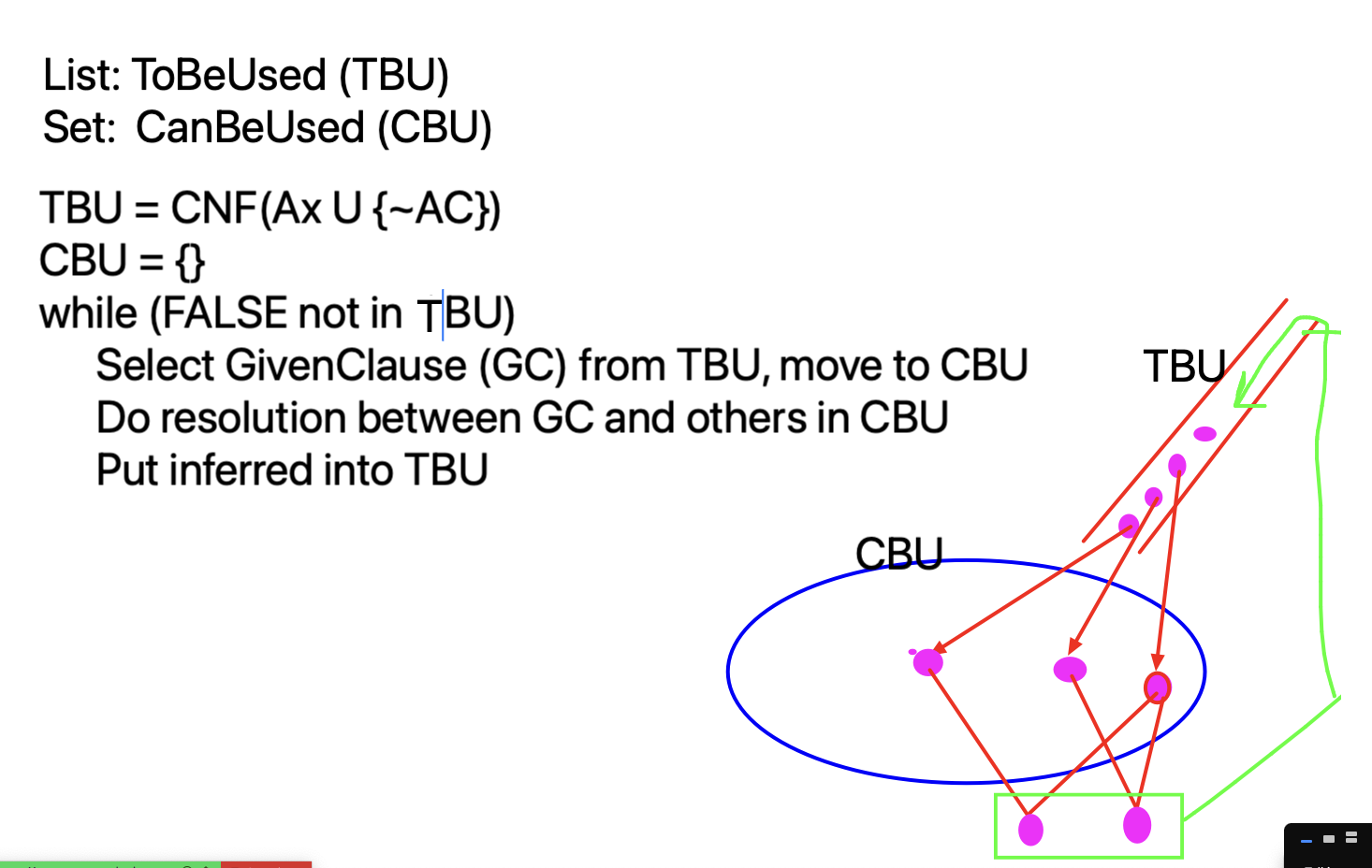
( ? [E: exam] : unfair(alex,E) ) ).

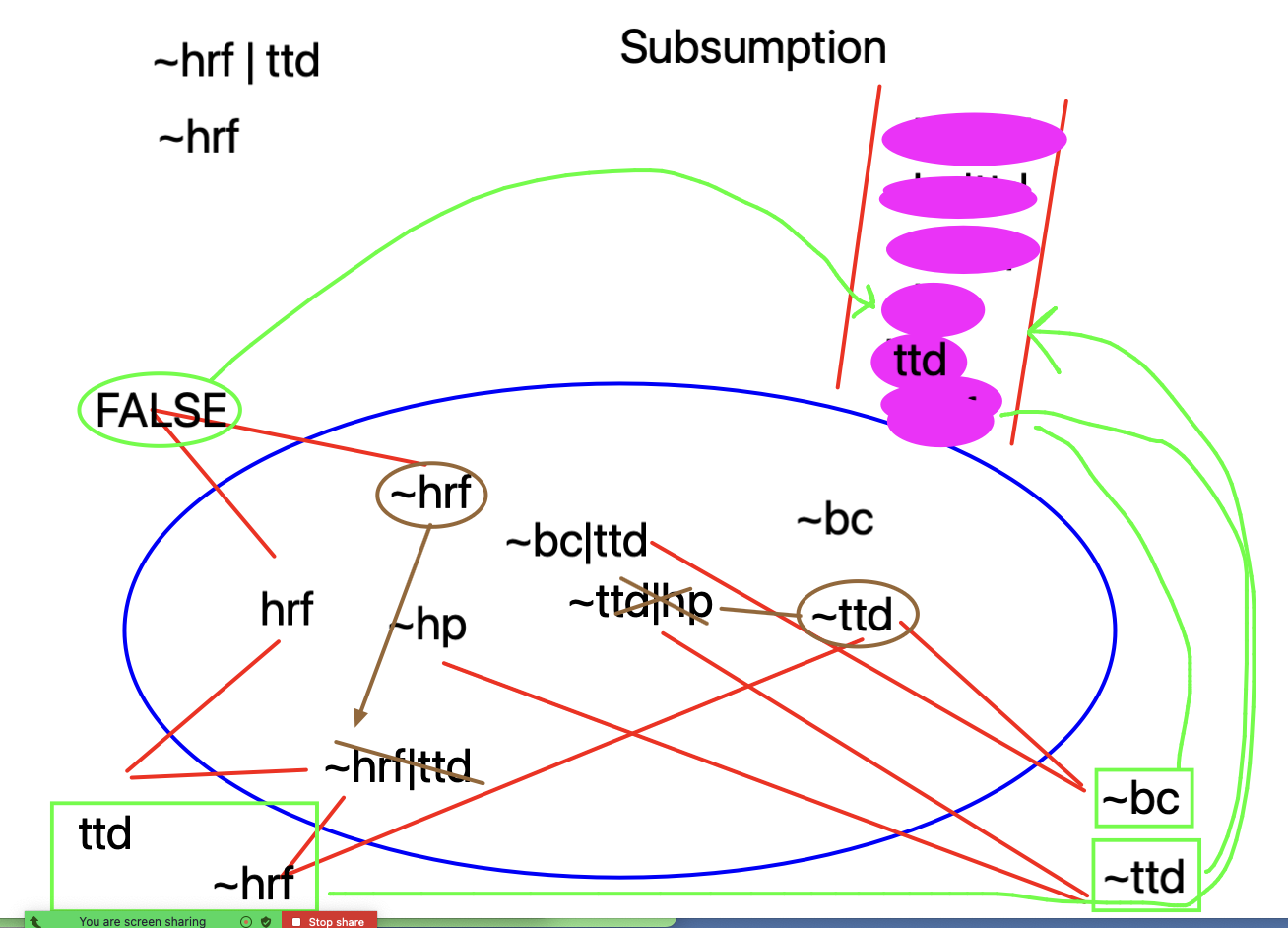


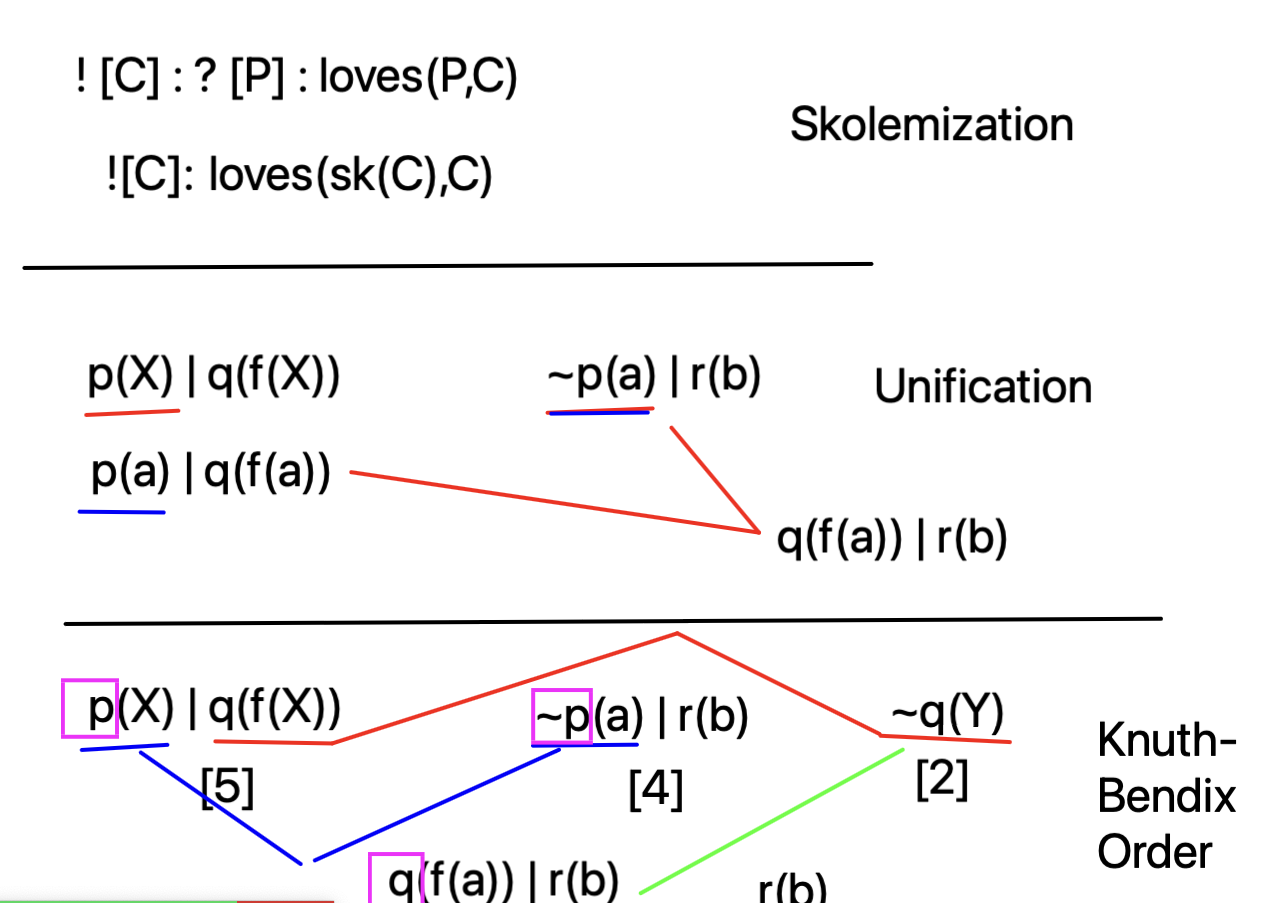












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Description automatically generated