We established nine rules to develop the semantic tree of any given sentence of *PropLog*:

1. Double negation:

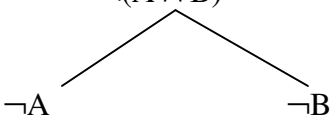
(DN) $\neg\neg A$
A

2. Conjunction:

(C) $A \wedge B$
A
B

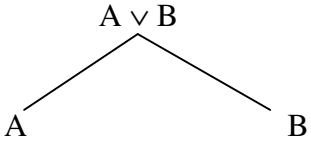
3. Negated conjunction:

(NC) $\neg(A \wedge B)$



4. Disjunction:

(D) $A \vee B$

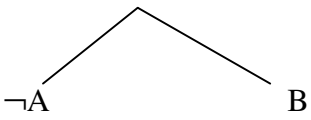


5. Negated Disjunction:

(ND) $\neg(A \vee B)$
$\neg A$
$\neg B$

6. Implication (Conditional):

(I) $A \rightarrow B$

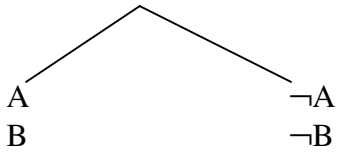


7. Negated Implication (Conditional):

(NI) $\neg(A \rightarrow B)$
A
$\neg B$

8. Biconditional:

(B) $A \leftrightarrow B$



9. Negated Biconditional:

(NB) $\neg(A \leftrightarrow B)$