SL Rules for Tableaux(Truth Tree)

 \land Decomposition



Decomposition



 $\neg \land \ Decomposition$

$$\neg (X \land Y)$$

$$\neg X \neg Y$$

 $\leftrightarrow {\rm Decomposition}$



 $\lor \ Decomposition$

$$\begin{array}{c} X \vee Y \\ \hline \\ X & Y \end{array}$$

 $\neg \leftrightarrow$

$$\begin{array}{c|c} \text{Decomposition} \\ X \leftrightarrow Y \\ \hline \\ X & \neg X \\ \hline \\ | & | \\ \neg Y & Y \end{array}$$

 $\neg \lor {\rm Decomposition}$

 $\neg\neg \ {\rm Decomposition}$

$$\neg \neg X$$
 \mid
 X

 \rightarrow Decomposition

$$\begin{array}{c} X \to Y \\ \hline \\ \neg X & Y \end{array}$$