

Here's the natural language translation of the given formal proof:

We will show that the negation of F is a logical consequence of the following three premises:

$p1 : (A \vee B \Rightarrow C \wedge D)$ $p2 : (C \vee E \Rightarrow \neg F \wedge G)$ $p3 : (F \vee H \Rightarrow A \wedge I)$

We will derive $\neg F$ by contradiction. Let's assume F and show that this leads to a contradiction.

Starting with F , we can reason as follows:

$F \Rightarrow (F \vee H)$ (by the alternate rule) $\Rightarrow (A \wedge I)$ (by premise $p3$) $\Rightarrow A$ (by left-and) $\Rightarrow (A \vee B)$ (by the alternate rule) $\Rightarrow (C \wedge D)$ (by premise $p1$) $\Rightarrow C$ (by left-and) $\Rightarrow (C \vee E)$ (by the alternate rule) $\Rightarrow (\neg F \wedge G)$ (by premise $p2$) $\Rightarrow \neg F$ (by left-and)

This final result, $\neg F$, contradicts our initial assumption F . Therefore, we have derived a contradiction from the assumption F .

Thus, by the principle of proof by contradiction, we can conclude $\neg F$.

This proves that $\neg F$ is indeed a logical consequence of the given premises.