

Proving  $B$  from the Premises  $\neg(A \vee B) \implies C$ ,  $\neg C$ , and  $\neg A$ .

$$\neg(A \vee B) \implies C \qquad \text{Premise} \qquad (1)$$

$$\neg C \qquad \text{Premise} \qquad (2)$$

$$(A \vee B) \qquad \text{Modus Tollens}(1,2) \qquad (3)$$

$$\neg A \qquad \text{Premise} \qquad (4)$$

$$B \qquad \text{Disjunctive Syllogism}(3,4) \qquad (5)$$