305 Lecture 24 - More Examples of Truth Trees

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Plan

This lecture goes over some examples of truth trees.

Examples to work On

Are these arguments valid?

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

$$\neg A \land \neg B \vdash \neg(A \lor B)$$

$\neg(A \wedge B) \vdash \neg(A \vee B)$

$\neg(A \vee B) \vdash \neg(A \wedge B)$

$\neg A \vee B, A \vdash B$

$\neg A \vee B \vdash A \rightarrow B$

$A \rightarrow (B \rightarrow C) \vdash (A \vee B) \rightarrow C$

$$A \to (B \to C) \vdash (A \wedge B) \to C$$

$A \rightarrow C \vdash (A \vee B) \rightarrow C$

$A \to C \vdash (A \wedge B) \to C$

$$(A \to C) \land (B \to C) \vdash (A \land B) \to C$$

$$(A \to C) \land (B \to C) \vdash (A \lor B) \to C$$

$$(A \to C) \vee (B \to C) \vdash (A \wedge B) \to C$$

$$(A \to C) \vee (B \to C) \vdash (A \vee B) \to C$$

$$(A \to (B \to C)) \to (B \to (A \to C))$$

$$A \to ((A \to B) \to B))$$

$$(A \to B) \to (A \to B)$$

$$(A \to (B \to C)) \to ((A \to B) \to (A \to C))$$

For Next Time

- Do the week's assignment on trees and tables.
- Next week we start on *Odds and Ends*