

STORY Problems - CLASSWORK

KEY

① Given: $R \rightarrow A$
 $A \rightarrow \sim P$
 $P \vee S$
 $\sim S$

Prove: $\sim R$

① $P \vee S$ } \rightarrow ③ P
② $\sim S$ } ④ $A \rightarrow \sim P$ } \rightarrow ⑤ $\sim A$
⑥ $R \rightarrow A$ } \rightarrow ⑦ $\sim R$

Don did not play the radio too loudly.

- ① Given
- ② Given
- ③ L. of Disjunctive Inf.

- ④ Given
- ⑤ L. of Contrapositive Inf.
- ⑥ Given

⑦ L. of Contrapositive

- ② $J \rightarrow A$ ✓
- $A \rightarrow \sim K$ ✓
- $J \vee E$ ✓
- K ✓

Prove: E

$$\left. \begin{array}{l} \textcircled{1} A \rightarrow \sim K \\ \textcircled{2} K \end{array} \right\} \rightarrow \left. \begin{array}{l} \textcircled{3} \sim A \\ \textcircled{4} J \rightarrow A \end{array} \right\} \rightarrow \left. \begin{array}{l} \textcircled{5} \sim J \\ \textcircled{6} J \vee E \end{array} \right\} \rightarrow \textcircled{7} E$$

Jacobs has a birthday in November

- ① > Given
- ② > Given
- ③ L. of Contrapositive Inf.
- ④ Given
- ⑤ L. of Contrapositive Inf.
- ⑥ Given
- ⑦ L. of Disjunctive Inf.

- ③ $(I \vee A) \rightarrow M$
- $\sim I \rightarrow T$
- $E \rightarrow \sim T$
- $\sim M$

Prove: E

$$\left. \begin{array}{l} \textcircled{1} (I \vee A) \rightarrow M \\ \textcircled{2} \sim M \end{array} \right\} \rightarrow \textcircled{3} \sim(I \vee A) \rightarrow \left. \begin{array}{l} \textcircled{4} \sim I \wedge \sim A \\ \textcircled{5} \sim I \end{array} \right\} \rightarrow \left. \begin{array}{l} \textcircled{7} T \\ \textcircled{8} E \rightarrow \sim T \end{array} \right\} \rightarrow \textcircled{9} \sim E$$

Ian does not practice.

- ① Given
- ② Given
- ③ L. of Contrapositive Inf.
- ④ DeMorgan's Law
- ⑤ L. of Simplification.
- ⑥ Given
- ⑦ L. of Detachment
- ⑧ Given
- ⑨ L. of Contrapositive Inference