6. \[ \text{SHOW } N \] \[ \text{DD} \]

7. \[ N \] \[ 5, \&E \]

8. \[ N \] \[ 1, 2, 4, \text{SC} \]

A special case of SC arises when the first premise is of the form \( \varphi \lor \sim \varphi \). Since this is a theorem of \( D_1 \) (we proved it at the end of Chapter 4, §4), it need not be explicitly present in order to use SC; in fact, we have a second form of SC which we may call SC2:

\[
\begin{align*}
\text{SC2} & \quad \varphi \to \psi \\
& \quad \sim \varphi \to \psi \\
& \hfill \psi
\end{align*}
\]

If you supplied a derivation for exercise number 14 of Exercises 4-6, you will have a good idea how we could do without this rule, and how inconvenient it would be to do so.

This rule corresponds to ordinary reasoning as well. If the accountant knew about the embezzlement, he is culpable and should be dismissed; if he didn’t know, he is incompetent and should be dismissed. Therefore, he should be dismissed.

1. \[ A \to (G \& D) \] \[ P \]
2. \[ \sim A \to (I \& D) \] \[ P \]
3. \[ \text{SHOW } D \] \[ \text{DD} \]
4. \[ \text{SHOW } A \to D \] \[ \text{CD} \]
5. \[ A \] \[ \text{ACD} \]
6. \[ \text{SHOW } D \] \[ \text{DD} \]
7. \[ G \& D \] \[ 1, 5, \sim \text{E} \]
8. \[ D \] \[ 7, \&E \]
9. \[ \text{SHOW } \sim A \to D \] \[ \text{CD} \]
10. \[ \sim A \] \[ \text{ACD} \]
11. \[ \text{SHOW } D \] \[ \text{DD} \]
12. \[ I \& D \] \[ 2, 10, \sim \text{E} \]