

To prove theorems with implication, the simplest approach is usually to use (3.59).

1. Study Section 3.6 except Leibniz's Rule as an Axiom.
2. Prove (3.61) Contrapositive.
3. Prove (3.63) Distributivity of \Rightarrow over \equiv .
4. Prove (3.65) Shunting.
See the hint in Exercise 3.49.
5. Prove (3.70).
See the hint in Exercise 3.54.
6. Prove (3.71) Reflexivity of \Rightarrow .
7. Prove (3.72) Right zero of \Rightarrow .
8. Prove (3.76a) Weakening the consequent.
9. Prove (3.77) Modus ponens.
Use theorem (3.66).