

Mathematik und Logik

1. Übungsaufgaben

2005-10-18

1. $A \Rightarrow ((A \Rightarrow B) \Rightarrow B);$
2. $B \Rightarrow (A \Rightarrow B);$
3. $(A \Rightarrow B) \Rightarrow ((B \Rightarrow C) \Rightarrow (A \Rightarrow C));$
4. $(A \Rightarrow (B \Rightarrow C)) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C));$
5. $A \Rightarrow A;$
6. $((A \Rightarrow B) \Rightarrow B) \Rightarrow (A \Rightarrow B);$
7. $(A \Rightarrow (B \Rightarrow C)) \Rightarrow (B \Rightarrow (A \Rightarrow C));$
8. $(B \Rightarrow C) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C));$
9. $A \wedge B \Rightarrow B;$
10. $A \wedge B \Rightarrow B \wedge A;$
11. $(A \Rightarrow (B \Rightarrow C)) \Rightarrow (A \wedge B \Rightarrow C).$
12. $A \wedge B \iff B \wedge A;$
13. $(A \wedge B) \wedge C \iff A \wedge (B \wedge C);$
14. $A \iff A \wedge A;$
15. $(A \wedge B \Rightarrow C) \iff (A \Rightarrow (B \Rightarrow C));$
16. $(A \Rightarrow (B \wedge C)) \iff (A \Rightarrow B) \wedge (A \Rightarrow C);$
17. $A \iff A;$
18. $(A \iff B) \wedge (B \iff C) \iff (A \iff C).$
19. $A \vee B \iff B \vee A;$
20. $(A \Rightarrow C) \wedge (B \Rightarrow C) \iff (A \vee B \Rightarrow C);$
21. $(A \Rightarrow C) \vee (B \Rightarrow C) \Rightarrow (A \wedge B \Rightarrow C);$
22. $A \wedge (B \vee C) \iff (A \wedge B) \vee (A \wedge C).$