Aufgabe 7-1    Forward- and Backward-Reasoning
Discuss the difference between forward and backward reasoning by considering the phenomenon *pressure to buy* (deutsch: Kaufzwang).

Aufgabe 7-2    Closed-World Assumption
Discuss possibilities to introduce the Closed-World Assumption into the Tableau Calculus for $\mathcal{ALC}$. What would be the consequences.

Aufgabe 7-3    Monotonic Logic
Does the closed-world assumption cause a monotonic or a non-monotonic logic?

Aufgabe 7-4    Datalog, Range-Restriction
What would change in the implementation of a Datalog system if the requirement that all variables in the head of a rule also occur in the body of the rule (Range Restriction)?

Aufgabe 7-5    Graph-Coloring
Try to code the graph-coloring problem (with 3 colors) in Datalog, and give two reasons why this must fail.

Aufgabe 7-6    Contradictions in Datalog
Is it possible to find contradictions in Datalog, and if not, what would have to be changed to make this possible. What would be the consequences?

Aufgabe 7-7    OPS 5
Explain what the following OPS-5 program does. (http://www.99-bottles-of-beer.net/language-ops5-2208.html)

(literalise Count bottles)
(literalise SecondLine)

(startup
   (make Count ~bottles 99)
  )

(p moreBeer)
Aufgabe 7-8    Prolog

What happens when the following Prolog program

p(Z,f(Z)).
q(X) :- p(X,X).

is called with a query q(Y).? Explain the result.