

Übungen zur Modellierung, Wintersemester 2006/07

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Sprechstunde abwechselnd Montag, 15-16 Uhr

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Übungsblatt 4

Abgabe bis **15.11.2006, 14:00 Uhr**

Aufgabe 9: Marking algorithm

The Alphabet $\mathcal{A} := \{A, B, C, D, E, G\}$ is given.

Apply the marking algorithm to the formulas below. Indicate all the intermediate steps. Are these formulas satisfiable or unsatisfiable? If a formula is satisfiable, give its minimum model as well.

(a) $F_1 := (\neg A \vee \neg B \vee \neg D) \wedge \neg E \wedge (\neg C \vee A) \wedge C \wedge B \wedge (\neg G \vee D) \wedge G$

(b) $F_2 := (\neg A \vee \neg B \vee C) \wedge A \wedge \neg D \wedge (\neg B \vee \neg C \vee \neg D \vee E) \wedge (\neg C \vee D \vee \neg E) \wedge (\neg A \vee B \vee \neg C) \wedge (\neg A \vee C)$

12 Punkte

Aufgabe 10: Inheritance

The following terms are given: Car, truck, truck with trailer, taxi, motorbus, container ship, ferry, raft, yacht.

(a) Identify the classes and sketch an inheritance hierarchy to the given terms.

(b) Find the generalization of the classes and complete the inheritance hierarchy (only one class should be in the topmost of inheritance hierarchy)

8 Punkte