Human Reasoning and the Weak Completion Semantics
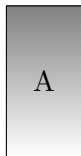## Technische Universität Dresden
Exercise 11

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Note: Please consider the equational theory and the set of integrity constraints to be empty for each question, unless stated otherwise.
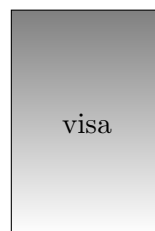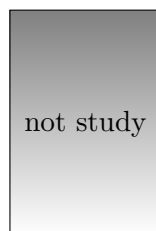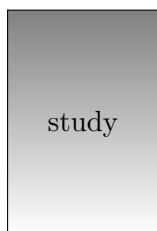
Problem 1

Given the four cards below, you are provided with the conditional: *if there is an A on one side of the card, then there is a 9 on the other side.*

| A | B | 8 | 9 |

Which two cards would *you* turn in order to check whether the given conditional is indeed true? Please show the modeling process explicitly and explain your choices.
(*Your classification for this particular conditional need not match with how it is in the manuscript*).

Problem 2

Given the four cards below, you are provided with the conditional: *if a person with an Indian citizenship wants to study in Germany, then the person needs a visa.* This is classified as an obligation with non-necessary antecedent.

| study | not study | visa | no visa |

Which two cards would you turn in order to check whether the given conditional is indeed true? Please show the modeling process explicitly and explain your choices.

Problem 3

Given the following background knowledge: *if it rains, then the roofs are wet and she takes her umbrella.* The first part of the information is an obligation but not the second.

Please show the modeling of the evaluation of the following conditionals (starting with the specification of the program) along with the possible dependency graphs:

a. *If the roofs are not wet then it has not rained.*

b. *If she has taken her umbrella then it has rained.*

(*The said dependency graphs may also be sent as clear photos or scans alongside the solutions. Please do not forget to mention the numbering in such a case*).