

**Exercise 1 (2 Points)** Write an essay of about 300 words that explains your understanding of the *modelling process* and of a *system model*.

**Exercise 2 (4 Points)** Develop a model of a *coffee vending machine*. The machine shall serve a cup of coffee after 1€ has been inserted. The user shall have a choice between coffee, coffee with milk, coffee with sugar, and coffee with milk and sugar. The machine provides buttons for these four choices of coffee, and a button for aborting and returning the money.

Try to draw a transition system for your model and explain it.

Write a 300 word essay describing the process with which you came up with your model.

**Handing in this Assignment** Please submit your solutions hand-written on paper no later than October 21, 2009, 18 o'clock (before the tutorial session). You may, at your option, submit the solutions at my office or before the tutorial starts.