Sheet 1
Submission deadline: May 7th 2003, before class

Exercise 1
Characterize the following definitions according to the 4 dimensions mentioned in class.

1. „A collection of algorithms that are computationally tractable, adequate approximations of intractably specified problems“ (Partridge, 1991)

2. „The enterprise of constructing a physical symbol system that can reliably pass the Turing Test“ (Ginsberg, 1993)

3. „The field of computer science that studies how machines can be made to act intelligently“ (Jackson, 1986)

4. „A field of study that encompasses computational techniques for performing tasks that apparently require intelligence when performed by humans“ (Tani-moto, 1990)

5. „A very general investigation of the nature of intelligence and the principles and mechanisms required for understanding or replicating it“ (Sharles et. al., 1989)

6. „The getting of computers to do things that seem to be intelligent“ (Rowe, 1988)

Exercise 2
Examine the AI literature to discover whether or not the following tasks can currently be solved by computers:

1. Playing table tennis.

2. Driving a car in New York City.
3. Playing chess on a competitive level.
4. Discovering and proving new mathematical theorems.
5. Drawing a picture.
6. Giving competent legal advice in a specialized area of law.
7. Translating spoken English into spoken German in real time.
8. Teaching an AI class.

**Exercise 3**

Name two more applications, from which one is solved and the other is not solved with AI methods.