

Homework Assignment 1

Due: Tuesday, January 21 at the start of class.

A. Solve the 12 coins problem (finding out which coin is counterfeit and whether it is lighter or heavier than the other coins in three or less weighings). This means writing down a complete set of instructions that solves this problem. The instructions should be in English, not a programming language. Graphs to help explain the process are acceptable.

B. Separate from the actual solution above, write a description of the process you used to solve part A's problem. I.e. what was the process that you as a human used to solve the 12 coins problem. Be as specific as possible. Could any of the process you used be automated? What parts? How could they be automated?

C. List at least 5 examples of AI that you encounter in your daily life (different from any that I mentioned in class). Explain why you think AI is involved.

D. List the top 5 academic journals in the area of artificial intelligence. List the full bibliographic data for at least three articles that you find interesting that have appeared in one of these journals in the last year.