## Giovanni Anastasio

## COG 356

10 Items drawn from "Introduction: A Musico-Logical Offering":

- 1. I was unaware that older pianos had no way of playing one note louder than the other, all notes had a uniform loudness.
- 2. By Bach creating such complex and sophisticated pieces at the request of the king shows how much power and respect royalty had in that time period.
- 3. It amazed me that even though he had created some of his most complex canons in the compositions created for the king, they were never finished. Instead left up to the kind as a tricky puzzle and to let the theme be discovered by someone else.
- 4. The way a canons notes are assembled can cause different meanings to the listener because of the way the brain perceives the notes within context. There are also three different variants of cannons and Bach addresses all of them in the ten cannons within the Musical Offering.
- 5. Much of the art done by Escher were paintings that appeared as illusions, paradox, or have double meaning. His art was therefore admired by mathematicians because of the principles of symmetry used.
- 6. Gödel was one of the first to try and use mathematical reasoning to explain the Strange Loop paradox that is seen in both Escher and Bach's work. Through his work on this paradox brought forth discoveries of new theorems.
- 7. I was unaware that since 1931 humans have been trying to mechanize the thought process of reasoning.
- 8. It appears that the solution to most of these paradoxes in mathematics are cause by multiple things making it hard to solve the issue at its source.
- 9. Even when Babbage was doing his work on analytical engines and generative tables he was afraid that these machines would eventually be able to overwrite its own program.
- 10. The main barrier in the advancement of research in AI is taking a mindless programable machine, and then breaking down concepts into rules to be programmed into these machines.

Reaction to "Three-Part Invention"-

I thought that the "Three-Part Invention" was a great way to explain the concepts of the motionless theorems. With the story being told from multiple characters through their dialog it allows for multiple perspectives on the paradoxes to be seen. The story was told in such a way that information was both modeled and there was an interesting story behind it. Lastly the intervention's dialog was very descriptive and explains it in a way that most people wouldn't have much trouble understanding.